

MICHIGAN FARMER

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Advertisements.

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Rates of Advertising.

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For advertisements making over one square, and for periods of over three months, our terms will be liberal.

The attention of Breeders of Stock, Nursery men, Florists, Seedsmen and Agricultural Implement Manufacturers, as well as those who wish either to buy or dispose of farms or farming lands, stocks, &c., is particularly called to the advantages which a circulation of nearly twelve thousand offers to them throughout the State of Michigan.
JOHNSTONE & DUNGKLEE.

State Agricultural College.

A BILL.—For the establishment of a State Agricultural School.

SEC. 1. *The People of the State of Michigan enact,* That the President and Executive committee of the Michigan State Agricultural Society be and are hereby authorized to select, subject to the approval of the State Board of Education, a location and site for a State Agricultural School; within 10 miles of Lansing, and subject to such approval, contract for and purchase for the State of Michigan such lands, not less than five hundred acres, nor more than one thousand acres, in one body, for the purpose of an experimental farm and site for such Agricultural School: *Provided,* That the amount to be paid for such farm and site shall not exceed fifteen dollars per acre, and that the conveyance or conveyances be made to the State of Michigan.

SEC. 2. There is hereby appropriated twenty-two sections of salt spring lands, or the money arising from the sale thereof, referred to in article 13, section 11, of the Constitution of the State of Michigan, for the purchase of land for such site and location, and the preparation thereof, the erection of buildings, the purchase of furniture, apparatus, library and implements, payment of professors and teachers, and such other necessary expenses to be incurred in the establishment and successful operation of said school.

SEC. 3. Upon the execution and delivery to the Secretary of State of the proper conveyance or con-

veyances of the land, the purchase of which is provided for in the first section of this act, and the certificate of the Attorney General, that he has examined the title of the same, and finds it unincumbered; and that the conveyance or conveyances are executed in due form, and certificate, from the President and Secretary of the Board of Education, that the same is in accordance with the contract or contracts for the purchase of the same, and that the location has been approved by them; the Auditor General shall draw his warrant or warrants on the State Treasurer for the amount of such purchase, in favor of the party or parties to whom such sum or sums shall be due, payable out of said salt spring lands, or money accruing from the sale of the same, and the said certificates in this section mentioned, shall be filed and preserved in the office of the Secretary of State.

SEC. 4. Upon the purchase of such location and site, there shall be established on such site, under the direction and supervision of the State Board of Education, an Agricultural School, by the name and style of the Agricultural College of the State of Michigan; and the chief purpose and design of which, shall be to improve and teach the science and practice of agriculture.

SEC. 5. The course of instruction in said College shall include the following branches of education, viz: An English and Scientific course, natural philosophy, chemistry, botany, animal and vegetable anatomy and physiology, geology, mineralogy, meteorology, entomology, veterinary art, mensuration, leveling and political economy, with book-keeping and the mechanic arts which are directly connected with agriculture, and such others as the Board of Education may from time to time see fit to prescribe, having reference to the objects specified in the previous section; and the said Board may establish such professorships, and employ such professors and teachers, to be called the Board of Instruction of said college, for the instruction aforesaid, as they may judge best for such object: *Provided,* The sum paid such professors and teachers for the first year after said college shall go into operation, shall not exceed the sum of five thousand dollars, and for the next year not exceeding the sum of six thousand dollars; and for any years thereafter, such a sum as the State Board of Education may deem necessary for the successful operation of the institution. Tuition in said institution shall be forever free to pupils from this State, and any number of pupils may be admitted who shall apply from any part of this State: *Provided,* That in case more pupils apply than can be accommodated or taught, then said Board

shall adopt some equitable plan, giving to each county a number according to the ratio of population, as it shall appear from the census last taken, and in that case, those from each county shall be admitted in the order in which they shall apply, until the quota of such county shall be full.

SEC. 6. There shall be two scholastic terms in each year—the first term commencing on the first Wednesday in April, and ending on the last Wednesday in October; the second term commencing the first Wednesday in December, and ending on the last Wednesday in February; and no pupil shall be received for less than one term, unless by special permission from the Board of Instruction.

SEC. 7. The Board of Education, upon consultation with the Board of Instruction, shall from time to time, fix and establish rules as to the number of hours which shall be devoted to manual labor or to study, which may be different in different terms or seasons. But during the first term in such year, the time devoted to labor shall not be less than three or more than four hours each day and no student or pupil of said college shall be exempt from such labor, except in case of sickness or other infirmity.

SEC. 8. The Board of Education shall appoint one of the professors in said college to be the President thereof, and one to be its Secretary, and one to be its Treasurer, and the Board of Instruction may establish such rules and regulations from time to time, for the government of said college and instruction therein, as they may deem proper in any matter not regulated by the Board of Education; and the rules and regulations adopted by such Board of Instruction, shall remain in full force until altered by said Board of Education. And said Board of Instruction shall have power, subject to the approval of the Board of Education, to establish by-laws for the government and discipline of the pupils of said college, in regard to conduct and behavior, and to affix such pecuniary penalties as they may deem proper, and to prescribe the causes for expulsion or dismissal of any such pupil; which by-laws shall have the force of law, unless altered, modified or repealed by the Board of Education, or the Legislature. And the Board of Education shall fix the compensation to be credited or paid for the labor performed by pupils, under the provisions of section seven of this act.

SEC. 9. The President of said Board of Instruction shall preside at all meetings of said Board, except in case of sickness or absence; in which case the Board may elect one of their number President *pro tempore*; and it shall be the duty of the President to see that all the regulations established by this act by the Board of Education and by the Board of Instruction, in regard to the government and instruction in said college be enforced.

SEC. 10. The Secretary of said Board of Instruction, shall record all the proceedings of said Board, and all regulations and by-laws for the government of said college, and shall publish the same, and furnish a copy thereof to this State, to each member of the Board of Education, to the County Clerk of each county, and to the Clerk of each organized township in this State. He shall also keep a full record of all improvements and experiments made on said lands, their costs and results. He shall also keep a careful account with each field, in connection with a plan of the farming lands or farm, exhibiting the position of each, in which shall be shown the manner, and cost of preparing the ground, the kind of crop, time of planting or sowing, the after condition, the time and

manner of harvesting, the labor devoted to each process and its cost price, with the cost of preparing the matured crop for market, and the price for which it was sold, and of such other matters as the Board of Education, and of Instruction, or either of them may require of him; and he shall furnish a copy thereof at the end of each term to the President of the Board of Education; and the said record shall at all reasonable hours be open to the inspection of any citizen of this State.

SEC. 11. The Treasurer shall receive and keep all moneys arising from the sale of products of the farm, and from fines and penalties that may be imposed; and shall give bonds in such sum as the Board of Education may require. He shall pay over all moneys upon the warrant of the President, countersigned by the Secretary, on account of such contingent expenses of the institution as may arise. He shall render annually in the month of December, to the Board of Education, and, as often as required by said Board, a full and true account of all moneys received and disbursed by him; stating for what received and paid, and shall produce vouchers for such payments. The surplus money, if any remain in his hands at the time of rendering such account, shall, if required by said Board, be paid over to the State Treasurer to be placed to the credit of said institution.

SEC. 12. After said college shall have commenced its first term, the Superintendent of Public Instruction shall appoint visitors for the same, who shall perform the like duties, required of such visitors by law, in reference to the State Normal School.

Specifications for Barns, &c.

SPECIFICATION OF WORK to be executed, and Material to be used in erecting and completely finishing Barns and out buildings, &c., from Plans, Elevations and Specifications prepared by A. JORDAN, Architect, Detroit, Mich., September, 1854.

MASON WORK.

Size of Building.—The buildings to be of brick, above the level of the grading, and will measure 100 feet long by 110 feet deep, enclosing an area in the middle of 60 feet by 60 feet.

Heights of Stories.—The wall will measure 18 feet high to the underside of the eaves of roof, and the story on the ground will be 12 feet in the clear, with lofts round the whole building above.

Footings.—The walls will all be built upon stone footing, commenced 3½ feet below the level of the grading. The footing to be 18 inches wide at the top, and 24 inches wide at the bottom, and formed of rubble stone, laid in good well beaten lime mortar made in the proportion of one part lime to four parts of clean sharp river sand.

Stone Caps and Sills.—The caps and sills for the windows, and the caps for the narrow door openings, to be of cut stone. The sills to be 8 inches wide by 4½ inches thick, and the caps to be 5 inches wide by 10 inches high. The caps and sills to be all neatly chisel dressed.

Oak Sills.—The sills for all the entrance doors and gateways to be of oak, 12 by 16, built 6 inches under wall at each side of the openings, and bedded firmly on the stone footing below.

BRICKWORK.

Bricks.—All the bricks used, to be of the best merchantable bricks, and all to be hard burned. The best to be selected and used for the outside course

Bond.—The brickwork to be all laid up in old English bond, having one course of headers to five courses of stretchers all through.

Mortar.—To be laid in good well beaten lime mortar, made in the proportion of one part lime to three parts of clean, sharp river sand. All the joints of brickwork to be neatly struck.

Walls.—All the walls will be 12 inches thick the entire height, and must have the window and door openings located exactly where shown upon the plans and elevations. The wide door openings will all be arched over with three runs of brick, as shown on the elevations.

Gables.—There must be gables carried up at each end of front and rear elevations, as shown on the drawings.

Arches.—The openings in the inside walls will all be arched over with three runs of brick to each arch. The piers of arches behind the cattle stalls will be as wide as half the openings, to give room for doors to swing round against.

Crooks.—The Iron Crooks for the doors to hang on, in all the openings necessary, must be built into the brickwork, and firmly screwed through with plate and nut while the wall is being erected.

Manure Pit.—The Manure Pit in the centre of the quadrangular enclosure must be twenty feet square measuring on the outside of the brickwork. The stone footings will be sunk 5 feet below the level of grading in the yard, and the bottom of the pit, will be three feet below level of yard, and the stone work will be carried up to the level of grading.

The footings below the level of the bottom of pit, must be 24 inches wide, and 18 inches wide from these to level of yard, and all this stone-work must be laid in water lime cement throughout.

The bottom of pit, to be paved with cobble stone bedded in sand and well grouted through with water lime grouting. The brick walls will be carried up 5 feet high above the level of yard.

There must be a brick drain 12 inches in diameter and arched over from the cattle shed into the Manure Pit, to carry the liquid manure to the pit.

Paving.—The whole of the yard must be paved with cobble stone, laid in a good bed of sand and tightly packed. Paving to open from the Manure Pit towards the four sides, and to be sunk sufficient at a distance of 4 feet from the walls to form a gutter, which must slope from the middle each way towards the corners, where there will be gratings opening in to drains running under the building to carry the water away from inside the yard, &c.

The stable, cattle stalls, sheep pens, calves and hogs house, tool shed, coach house, &c., must be all paved in the same manner, and in the stable, cattle stalls, &c. to have a gentle slope towards the back.

CARPENTER AND JOINER WORK.

Lumber.—All the lumber and timber used, to be of pine or hemlock, except when otherwise specified, and all to be perfectly seasoned. The whole of the work to be executed in a thorough and most workmanlike manner.

Joists.—The Joists of the floors of lofts to be 12 by 2½ inches, and 20 inches from centres and to be all bridged with two rows of herring-bone bridging all round.

All headers and trimmers to be double and pinned together, and openings for the trap doors must be left in the proper places, over all the principal sheds and stalls.

Floors.—The floors to be laid with 1½ inch boarding, square jointed and nailed close.

The trap doors to be strongly battened together underneath and hung with two strong T hinges to each door.

Roof.—The roofs to be framed up with hip rafters where required 9 by 4, rafters 8 by 2 inches and 20 inches from centres, ridge pole 9 by 2 inches; wall plates 8 by 3 inches.

The rafters to be notched on to the wall plate where they cross, and firmly spiked down as also to hip rafters and ridge pole.

The roof will be boarded all over with one inch rough boarding, nailed close, and afterwards covered with the best rived shingles, each course laid in a bed of lime mortar.

Cupolas.—The ventilating cupolas will be framed up square, and built on to the roofs where shown on the plans and elevations, and the corner posts will be 4 by 4 inches, girths 4 by 4, plate 4 by 4 inches, roof joists, 4 by 2 inches boarded over and shingled and finished with finials and vanes, &c. complete.

Cupolas.—The four sides of Cupolas to have coarse boarding windows, and the inside of cupola will be open from the loft for ventilation.

Doors.—All the doors and gates of barns, &c., to be made of 1½ inch, narrow, dry notched pine boards, running diagonally, strongly battened at the back and the battens screwed on in the form of the letter Z, the horizontal battens running across where the band hinges are bolted through. The edges of boards to have a ½ inch bead mark over, and the joints to be all put together in white lead. The doors will be hung with strong crook and band hinges. The crooks to be made to pass through the brick-work, having an anchor welded on, to build into the wall, and a nut and washer firmly screwed to the crook inside the wall.

Crooks and Bands.—The bands will be made to strap across the doors, and secured by small iron bolts passing through the door at the battens, and firmly screwed up inside.

Sashes.—The sashes will be made of 9 by 14 glass, and the frames 1½ inches thick, hung in solid frames. All the glass to be the best Pittsburgh glass, double thickness, and all bradded in and back puttied.

The partitions between stalls in the stables to be framed up with a post at back end 6 by 6 inches, and studs between, 4 by 4 inches, and boarded over on each side with inch boarding.

The corn bins and feed boxes to be made of 1½ inch pine, planed and matched, and also the feed boxes for the cattle shed.

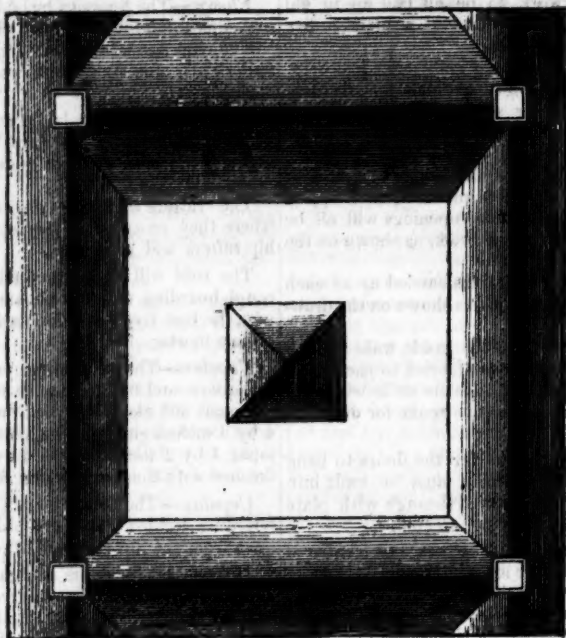
All the partitions to be framed up with studs 4 by 2 inches, and 16 inches from centres.

Partitions.—The partitions along the bays, sheep pens, &c., will be 2½ feet high, boarded on both sides and capped on the top.

Roof of Manure Pit.—The roof of manure pit will be framed up with hip rafters, 6 by 4 inches. Common rafters, 4 by 2 inches. Wall plate, 8 by 2 inches, all firmly nailed, boarded over with 1 inch, rough boarding, and shingled with the best rived shingles.

PAINTING.

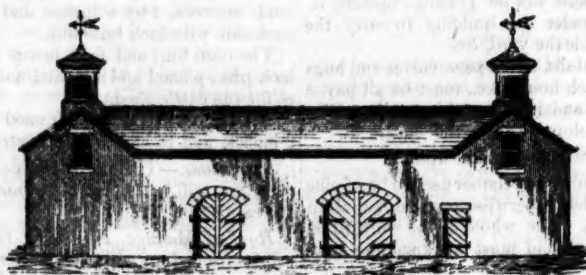
The doors, sashes and frames, and the cupolas, must all be painted with three coats of pure lead and oil color, of such a color as may be chosen.



PLAN OF ROOF,



SIDE ELEVATION.



FRONT ELEVATION.

ELEVATION OF BARNS AND PLAN OF ROOFS,

ACCORDING TO THE DESIGN FURNISHED BY A. JORDAN, AND AWARDED THE PREMIUM AT THE STATE FAIR OF THE MICHIGAN STATE AGRICULTURAL SOCIETY.

"Parks and Pleasure Grounds for Farmers."

Mr. Barry has an article under this caption in the November number of the *Horticulturist*. We introduce a portion of it here, for the purpose of calling the attention of our readers to the subject, and to correct, what we deem a mistaken recommendation which it contains. After speaking with great justness of the progress of agricultural improvement, and of the changes which have been wrought in the views and feelings of men in relation to the honor and respectability of the profession of farming, he says :

"We wish to see the farmer's home—the farmer's life—made more attractive. Hitherto, as a general thing, the improvements which have been made are of the *useful* kind, having reference mainly to the supply of man's physical wants. Most of our farmers must be regarded as the mere manufactories of food and clothing ; very little has been done to gratify the intellect, taste, or feelings—the higher and nobler attributes of our nature. And this is one reason, beyond a doubt, why many young persons who have, by means of education, reading and society, acquired a certain degree of refinement, become dissatisfied with agricultural life, and have sought the city. Intelligent, educated men, cannot certainly be satisfied with being mere growers of grain and breeders of stock,—they cannot love their home ; and to merit their love and attachment, that home must possess something of beauty, for the love of the beautiful is an instinct of man's nature.

It is not unreasonable, we trust, to expect, and even to urge some reform on this point. Make home attractive ; cultivate the taste, and feelings and affections, as well as you do your fields. Why should a wealthy farmer, with his 50, 100, or 200, or 300 acres of land, content himself with a rod or two of a door-yard and a dozen of shade trees, shaped and managed after the precise fashion of a village plot.—Why can he not, just as well, have a park and pleasure ground of several acres around his house, broad glades of lawn and groups of trees, separated from the cultivated portion of the farm by green hedges ? This, with a well stocked orchard and good, ample kitchen garden, would come up to our ideas of a country home ; and it would be impossible for children to grow up in such a home without becoming attached to it, and having their tastes expanded, their feelings refined—without appreciating the comforts and blessings of a country life. A rod or two of door-yard for a country house !—what a mockery ! There is something incongruous in the very look of it, that cannot fail to strike every observing person."

This is all well. There is no *good* reason for so meagre a display of ornament and taste about farmer's homes as actually does exist everywhere. Men with ample means, feel little disposition to make investments here. How often do we see a straight

fence from each front corner of the house to the highway, enclosing, perhaps, ten rods of ground, on which stand a few locust trees, or what is worse, a straight row or two of stunted fruit trees ; and this in the wide, open country, where all the needful materials for embellishment are within every man's possession—cheap land and the finest of native forest trees and vines. But here, it would seem, their ideas of planting and tasteful improvement, end. *Why not* extend the grounds about the dwelling, now that they have the capital to do it with ? But Mr. Barry goes on :

"Fence off with Osage Orange or Buckthorn, at a cost of about twenty to twenty-five cents a rod, *five to ten acres* of land immediately around your dwelling, seed it down and it will produce good crops of hay. You can get plenty of young Maples, Elms, Tulip trees, Ash and other native trees, in the woods, which can be taken up and planted at leisure intervals in the fall when farm labor is over, and early in spring before it commences, and even during winter, in mild weather. Until the trees are well established, it will be necessary to cultivate the soil around them. It will not be necessary to cover the whole ground with trees, but merely to scatter them here and there in groups, and singly to give it a park-like appearance which will distinguish it at once from the cultivated fields. A little can be done now, and a little again, as leisure affords ; and in a few years the work will show."

▲ We had been led to believe Mr. Barry to be what is known as a *practical* sort of a man, having very little of *romance* about his person. But really, when he recommends us poor farmers to hedge in "*five to ten acres*" for "*door-yard*," we cannot but think there must sleep an "*imagination*" somewhere, which occasionally, like the night-walker, gets abroad undressed. "*Five to ten acres* !" why sir, if you can induce every farmer in the land to fence off thus, *one to three acres*, it will be the most charming thing ever done for the country. We have not the least objection to the turning of ten, or twice ten acres of the adjacent grounds into a park, if the thing was only *practicable* ; but it is not, for good reasons. We, though sovereign land-owners, are not English land-lords. We do our own work ; we have our barns, our stables, our poultry-houses, piggeries, &c., *necessarily*, near our dwellings. And our orchards too, would be included within Mr. B.'s ten acres adjacent to the dwelling, which must for several years at least be cultivated ; all of which are obnoxious to the uninterrupted beauty of Park-scenery. But the paramount obstacle to attempting the formation of so much ground into parks, on every farm, is the want of help. We happen to know several wealthy farmers, having extensive improvements, who desire to lay out and embellish the grounds about their dwellings, but cannot attempt it, and at the same

time carry on their farms, with what help they are now able to procure.

We are bound to state, that to plant judiciously and properly take care of a park of three to five acres, will require much time yearly, and some expenditure of money for several years, the opinion of certain agricultural writers to the contrary notwithstanding. We do not make this statement to discourage the improver from the laudable and beneficent undertaking of planting a pleasure ground for the comfort and luxury of himself and family, but that he may rather, be prepared for what he will certainly encounter. He must neglect other work, (for we suppose that every go-ahead farmer always has a plenty to do,) or he must employ some person to procure his trees, and to plant them; they must be set with great care, and all be thoroughly mulched to assure their prosperous growth. If planted in sward ground they must be cultivated with the spade till well established in their new home—say three years—a slow and laborious process. Then comes the discouraging failures—the dying of some and the inferior growth of others; the necessity of surface manuring, every two years to secure a good growth of grass;—all this will have to be done, and if it could be accomplished as easily and readily in the field, with spade in hand as in some *Editor's Sanctums*, the whole country would very soon be dotted over with pleasure grounds and gardens. Now, we propose this:—and we want a hearty response to it from every reader of the *Michigan Farmer*, next spring; that *one acre*, or more, just according to the means at command, be measured off in the form of a half circle, nearly, each way from the dwelling, for ornamental ground, and perhaps a flower garden, if the female portion of the family are willing to take the care of that department—and planted out to forest trees, with here and there some rarer specimens obtained from the Nurseries—Evergreens, &c., but depending mainly upon our prolific native forests. Now friends, what say you to this proposition? Will you do it? Remove those straight fences which enclose your 7 by 9 plot, and in place of that have a broad glade of lawn, stretching off in the distance, with here and there a natural group of trees to afford light and shadow, and thus expand the minds and affections of your children, and instil in their beating hearts the true estimation of beauty and truth. No man is so destitute of the finer feelings—of a sense of the beautiful—as not to admire such a place as this. But we must close this rather lengthy chat for the present, promising next month to give a selection of forest and nursery trees, shrubs and plants, for planting in a tasteful manner, an acre of ground. B.

POLAND OATS.—Mr. Kingaley of Kalamazoo, who raised such fine samples of Poland oats last season, writes us that he has disposed of all that he has raised, and cannot fill any further orders.

Draining Makes the Soil Warm.

Here is a soil that needs draining—it is absolutely wet, and has no natural or artificial outlet. Hundreds of farms are in this condition. Now what becomes of the rain and snow which annually fall upon such farms? Why, after the soil is once saturated, the remainder must be carried off by evaporation. Now, it has been ascertained by experiment, that every gallon of water thus evaporated, requires as much heat as would raise five and a half gallons from the freezing to the boiling point! What an amazing loss is here! Heat is the great promoter of vegetable life. Farmers say "clay soils are slow." What wonder, indeed; they are cold, owing to the constant evaporation going on at the surface. Cover the land with moisture and keep it exposed to the air, and you readily experience a sense of coldness; because heat is abstracted in the evaporation of the water. This is precisely what transpires in the soil. Hence that field which is thoroughly drained, is ten to fifteen degrees warmer than the one beside it which has not been drained, though the soils are similar in other respects. In the one case, the soil absorbs and retains the heat; in the other, it is carried off in the vapor of the water, with which the surface is saturated. Therefore, draining, in one sense, changes the climate, so far as the growth of crops is concerned.

Mr. B. Simpson, in the "Journal of the Royal Agricultural Society," says: "I have observed the effects of drainage on the growing crops, and I have seen not only a much inferior crop on the undrained field, but that crop harvested fully three weeks after the same crop on drained land, and owing to this circumstance and the setting in of unsettled weather, I have seen that crop deteriorated fully ten per cent. in value"

The notion that heavy soils are cold and slow, will lose ground when these soils are made dry by complete drainage. B.

Comparative Profits of Milk Cows.

By comparing the following letter, from a friend in Massachusetts, with the statement made by Mr. Howe, of Moscow, in the January number of the *Farmer*, to which he refers, it will be perceived that he has made a wrong estimate of the time, and consequently of the number of pounds of butter made from each cow in a given time. Mr. Howe says "between the first of June and the eleventh of October;" not "the tenth of August," as our friend "Essex" has it. This would make the average yield of butter a little less than one pound per day, to each cow. But we give the letter as written; it will aid some of our readers in making comparative estimates of the profits of their own cows and those of the Bay State:

Editors of the Michigan Farmer:

GENTLEMEN: I have pleasure in the well-filled pages of your journal for this month, that has just come

to hand by your favor; and particularly in the facts stated by the farmer of Moscow, in relation to his cows of *native stock*. I understand him to say, from the first of June to the tenth of August, (one hundred days,) they yielded one hundred and seventy-four pounds of butter, and one thousand and forty-three pounds of cheese. This I take to be on pasture feed alone, without any extra attention. If this be so, it is doing quite as well as has been done in this Commonwealth by a herd of animals, selected with care from the best improved *foreign breeds*. Estimating three pounds of cheese to be equivalent to one of butter, which I believe will be found in accordance with experiments oft repeated, the butter product of those cows for the time mentioned will be found to be *one and a quarter pounds daily*, for each cow, for the entire period. That single cows have done better than this, when highly fed, there can be no question; but it does not often happen that an entire herd of cows will be found, yielding more than one pound per day, each, during the entire season. Such, if our recollection is right, was the yield of the dairies in Worcester county, for which the liberal premiums of seventy-five and fifty dollars were awarded by the State Society the present season. The first of these were awarded on the Lincoln farm, in the city of Worcester; the other to a farm in Barre, one of the best grazing towns in the State.

We have known a dairy of eight cows, that yielded on an average, two hundred pounds each in a period of six months; and four cows that yielded daily, one and a half pounds each for the period of four months; but in each of these cases, thirty-three per cent. of their yield is to be accounted for by the extra feed given them.

What we most want is accurate details of products on ordinary feed, in the usual way. Essex.

Mass., Jan., 1855.

Ohio Cow.

The following from the *Ohio Farmer*, speaks for itself. Read it, and then compare "Madame Giantess" with "Aunt Fanny's Cow," which comes next—"last but not least."

The Banner Milk Cow.

"WILLOWY FARM," West of New Petersburg, O. }
November 10th, 1854. }

THOS. BROWN, Esq., *Editor of Ohio Farmer*: At your request, and in the fulfillment of promises made other agricultural friends of some half dozen States, I present you for publication, the following statement of the banner milk cow of the Union! honored with first premiums at our State and National Fairs in October last.

"Madame Giantess" is a *thorough bred cow*, of the Patton and Short Horn cross, an orange red and white, variegated with clusters of beautiful spots on the back, resembling the English grape. Her horns are symmetrically fine, with a slight inclination upward. Age, 7 years; weight in last fifteen months, owing to condition, from 1,600 to 2,000 pounds!

MILK AND BUTTER RECORD.

In June, 1854, in ten successive days, Giantess gave 768 pounds of milk, her calf then 4½ months old, 26 pounds making a pound of butter. In May she gave on the average, being grain fed and let to grass, 88 pounds of milk per day. On one occasion she produced 26 pounds of milk in six hours!

GROSS BEEF RECORD.

Giantess has raised two calves this year, her own, a bull calf, and an orphan, a heifer, he being calved January 30, 1854, she March 16, 1854. The weight of the calves on October 1st was 1,425 pounds, his weight 925 pounds. The calves, until the 1st of September, had not been fed anything in the shape or of the nature of grain, reared entirely upon milk produced by Giantess, with the grass found in their lot. I think I might challenge the world to a comparison!

TREATMENT OF COW.

Since I purchased her in August, 1853, Giantess has had plenty of grain-feed when necessary, and in grass season a variety of the best grasses, with the liberty of ranging over some three or four fields of about 50 acres, at all seasons. I use no hay in winter, fodder, with plenty of corn in it, is Madam's principal diet during the winter season.

If the above facts are worth a place in your excellent paper, you are at liberty to publish them.

J. W. BROCK.

Michigan Against the World.

FRIEND JOHNSTONE: I thought that some months before now I should tell all your readers of "Aunt Fanny's cow";

But I've waited, though vain, for a great light to shine

From those high blooded men who pay hundreds for line;

Who pay dollars for beauty, and dimes for the size,

But cents only for milk, which is lost in their eyes.

Hence the silence that reigns, while Ohio peals forth

That she's queen of all Cowdom, yet native by birth!

"Aunt Fanny's cow," as she is often called, was seven years old last spring, and as near as we can judge, is purely native; as her grandam was brought from Ohio, and the blood has been in the family ever since. She is of the middling size, and her build indicates great milking properties.

In the summer of 1853, while kept in a pasture not the best, it having been seeded eight years, and without running water, her milk for one week yielded 13 lbs. and 14 oz. of butter, besides the new milk eaten by a family of three persons once a day, and cream used by two families of three persons each for tea and coffee. The other cows were dry at the time, and thinking it a good yield we weighed it out of curiosity. But we have frequently weighed her milk and found her to give 22 lbs. in the morning, and 28½ at night; making 50½ lbs. per day. At one time, butter was made from her milk alone on a Monday morning, and one week from the next Saturday she had a calf.

We have raised two cows from her, one four, and the other three years old last spring. The four year old has been farrow one season, and has had three calves. The three year old has had three calves, and for the last spring's a heifer calf, \$20, have been refused. Mr. Walker has also left a standing offer of

\$60, for its mother. The old cow is now owned by Col. H. A. Walker, of the Everhart farm in Cambridge; he asks double the price he paid for her, being \$100.

Judge ye between Michigan and the "World's cow of Ohio!"

B. C. BENSON.

Moscow, Jan. 8th, 1865.

Another Cow Story.

MR. EDITOR: As you hold the medium through which we may impart our experience in husbandry to others and receive theirs in return, I send you the following statement of what I have done in the line of dairying the past year. I have four cows; each came in last spring. From them we have made 660 lbs. of butter, 80 lbs. of cheese, raised one calf which would have gone for calf at four months old, being a heifer very large and nice; four pigs the largest of which I butchered, weighing 187 pounds; these had little other feed than milk. I sold my butter, excepting that consumed in the family, for 18½ cents per pound.

Now counting it all at this price, the 660

lbs. would amount to \$123 75
Cheese, 80 lbs. worth one shilling per pound 10 00

Amount \$133 75

In this estimate no account is made of the milk fed to the pigs and calf, nor of the milk and cream used in the family, consisting of five persons on an average.

My cows had no extraordinary keeping. They were stabled through the winter, and were in good condition in the spring. They had good clover feed in the spring and fall, but were much pinched through the drouth of last summer, which together with the excessive hot weather, made the produce of butter and cheese much less than it otherwise would have been.

My cows are a cross of native with blooded stock, which I think makes the best milkers. One bull calf has been reared from one of my cows the past season by C. A. Miller, girting at seven months old, five feet and 3 inches.

With these statements I leave your readers to judge whether dairying may be made profitable or not.

Yours &c.

D. H. MILLER.

Sheridan, Jan., 1865.

Still Another.

EDITORS OF THE MICHIGAN FARMER,—Gentlemen: The following statistics of milk given by a cow owned by me, were kept to gratify my own curiosity and not for publication, until the year was more than half gone, and then at the solicitation of Mr. S. B. Noble, associate editor of your valuable Journal, I consented to give them at the end of the year, through your columns, to the public: She is a mooley—a cross between native and Durham, perhaps a quarter or three-eighths Durham—color red, (roan) 9 years old last July—strong constitution and an excellent breeder;

her present weight is 1270 lbs., her heaviest weight in the year. She calved January 21, 1854, and I expect her to calve again the last of next month.

She has given during the year ending January 21, 1855, 11,295 10-16 lbs. of milk which I have divided as follows:

From Jan. 21, '54 to May 2, 1854 days 4400 lbs. av'g 44 lbs. per day
" May 10: " Aug. 8, '54 " 3628 " " 27 "
" Aug. 7, " Nov. 10, '54 " 2470 10-16 lbs. av'g a little over 23½ lbs. per day.
From Nov. 11, to Jan. 22, '55 62 days 796 15-16 lbs. av'g 12 13-16 lbs. per day.
The average for the year was a little over 30 15-16 lbs. per day
The last day she gave 12 7-16 lbs.

I tested it for butter in November, and found that the cream taken from the milk after three days standing yielded a little over 1 ounce of butter to the pound of milk given per day. I fed her as follows—good timothy and red top hay, and after calving, commenced feeding her two quarts of dry Indian meal per day, and increased it in a few days to 4 qts. per day, and continued it until good pasture came. After that nothing but pasture which consisted of clover, timothy, red top and marsh grass, which was sufficient until about the middle of August, when it failed. (There being about 2½ acres, and two cows in it,) then I gave her what hay she would eat every night in addition to the pasture. In September I commenced feeding her a half bushel of cut pumpkins per day, and about the 18th of Nov. added ¼ bushel of wheat bran per day, which lasted until freezing weather. Then I fed her ½ bushel of wheat bran and 2 qts. Indian meal per day, mixed with slops from the house, which was continued to the end of the year.

W. C. VOORHIES.

Ann Arbor, Feb. 8, 1855.

Milk Cows on the Raisin.

EDITOR MICHIGAN FARMER:—SIR, I perceive it is becoming quite common for farmers to give an account through your columns of their profits in the various branches of husbandry. Let me just hint that if some of them would be at a little pains to keep a book on purpose for the business of the farm, it would save a great deal of guess work, and at the end of the year they would be able with some certainty to tell what branch of their business was the most profitable.

And now permit me to give a brief statement of the profits of my milk cows during eight months of the past year. I have five cows, two of them being heifers with the first calf.

Butter, 880 lbs., sold at an average price of 16½ cts. per pound.....\$145 20
Cheese, 120 lbs., at 9 cts. per lb.....10 80
One veal calf.....4 00
Three calves raised, valued at \$5. each.....15 00
Allowing the milk fed to hogs to make 2½ pounds pork per day, the amount would be.....25 00

Total.....\$200 00

Now I do not give this statement thinking it the best that could be done, for I took no extra pains

with my cows. I send you this merely to show that with care and good management out of doors, and with a woman in the house having industry and skill enough to take care of the milk and butter, dairying may be made as profitable as any other branch of farm labor.

J. R.

Raisin, Mich., January, 1885.

Lady Millicent.

It gives us pleasure to present to our patrons the accompanying portrait of a valuable Shorthorned Cow imported by Jonathan Thorne, of Thornedale, Washington Hollow, Dutchess Co., N. Y., the past season. She is a fine specimen of the breed, being well grown and fully developed in every point. Her dam is from the same cow as Mr. Ambler's celebrated Heifer, "Miss Frances," the winner of a great many prizes in England. Annexed is her pedigree.

Roan, calved May 26, 1847, bred by F. H. Hawkes, Esq., Farnley Hall, England. The property of Samuel Thorne, Thornedale, Washington Hollow, Dutchess Co., N. Y.

Got by Laudable, (9282); Dam Millicent, by Groachy (6051); g. dam Fair Frances, by Sir Thomas Fairfax; (5196); g. g. dam Feldon by young Colling, (1843); g. g. g. dam Lily by Red Bull. (2838); g. g. g. g. dam Lily by son of Colling, (2131); g. g. g. g. g. dam —by Portner, (2409); g. g. g. g. g. g. dam —by R. Alcock's bull, (19).

We are informed by Mr. Jonathan Thorne that he has disposed of his entire interest in his valuable stock of Shorthorned cattle, Southdown Sheep, and Suffolk, and Berkshire Swine to his son, Samuel Thorne, who can at all times be found at his farm, Thornedale, Washington Hollow, Dutchess Co., N. Y. This stock has been but recently imported, and was selected with a great deal of care, and regardless of price from that of the best breeders in Great Britain.

Visit to the Gypsum-beds at Grand Rapids.

MESRS. EDITORS: I read in one of your late numbers, a letter from Mr. Butterworth, giving a description of his plaster bed near Grand Rapids, Kent Co., Michigan, which might lead some of your numerous readers to suppose that this was the only bed of plaster, worked at the Rapids. I therefore propose to give you a brief account of my visit to the beds last fall.

Mr. Butterworth's bed is situated on the west side of the Grand-river, about two miles below the city of Grand Rapids. I will not pause to describe this opening, for Mr. B. has ably done so in his letter.

About eighty rods below this, there was an opening being made by a son of the Emerald Isle; (I do not recollect his name;) he was within four feet of the thick rock or strata of Gypsum, which is about thirteen feet thick; (I would remark here that the

rock in these openings are stratified, and that the dip is supposed to be north-east;) he has about the same amount of alluvial deposit to remove as Mr. B. He has no mill for grinding, and intends to sell in bulk as taken from the quarry, delivered upon the bank of Grand river, a few rods from the quarry.

Just below this is another opening belonging to Messrs. Hinds and Adams. This, at the time of my visit, was in about the same state of progress as the last mentioned bed, no mill to grind, and offered for sale the same, on the bank of the river.

About a half mile below this is the opening of J. Windsor & Co.; they had just erected a fine mill and dry house on a small stream passing through their bed; they seem to be near the crop-out of the thick strata. They had but little uncovered, and that was in detached masses, the balance of the rock being worn away by the action of water. These masses were of a fine quality, and in the bed of the stream on which the mill is built. I think the rock is entire out of the channel of this stream, and the bed inexhaustable. The deposit on the top of the rock is comparatively light with the before mentioned beds.

And last though not least is the bed of Messrs. Morgan and Avery. This was the first opened on Grand River, and worked by the lamented Henry R. Williams; it is on the east side of the river, two miles from the city, down the river, and but a short distance from the Kalamazoo and Grand Rapids plank-road; this is the grandest opening of all. They have a fine mill situated on Plaster creek, (which runs through their bed,) with two run of stone driven by the water from the creek, and a twenty horse power steam engine, and can grind sixty tons every twenty-four hours. They have been active in quarrying this season, and have out some five thousand tons of as fine plaster as I ever saw, a great proportion being fit for stucco. These beds are truly a pleasing sight for the farmer, for they are so far advanced as to fully display treasures worth more to the agriculturists of this State, than mines of gold.

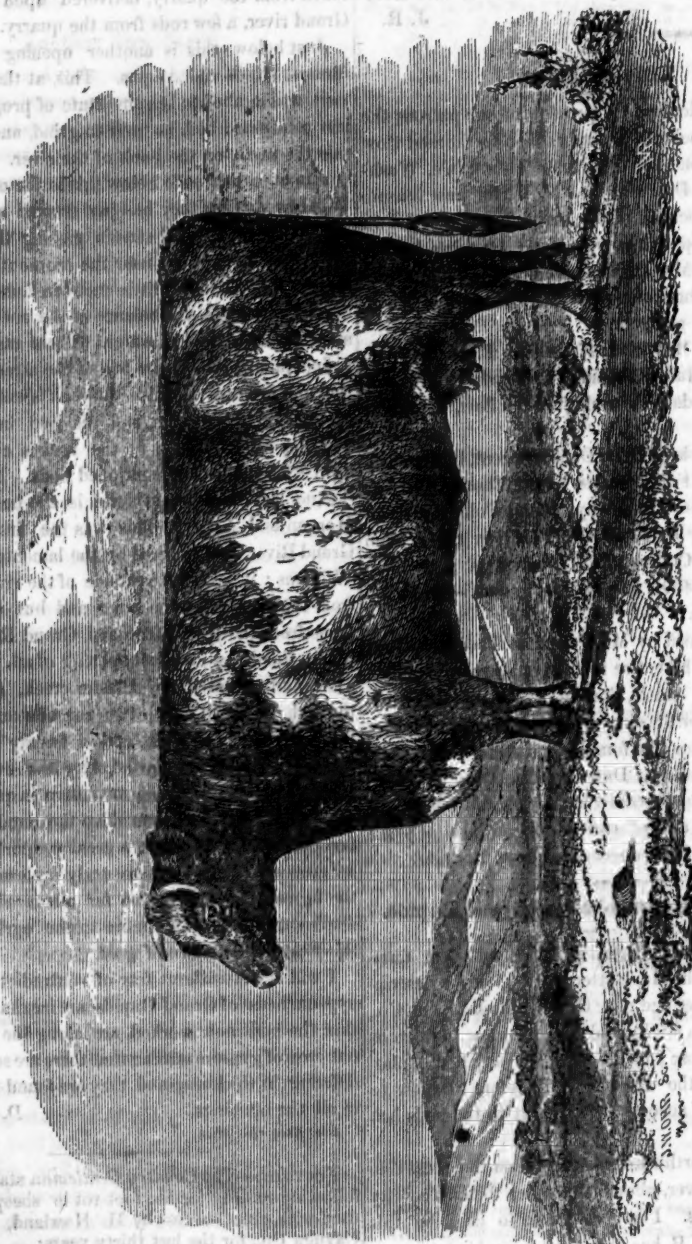
I will assert without fear of contradiction, that the gypsum beds of Grand Rapids are inexhaustable, and that the beds now worked, are along the line of the out crop of gypsum strata; that there are several strata differing in thickness, and they are found to coincide in all the openings.

D. C. McP.

Alto, Kent Co., Mich.

FOOT ROT.—The *Country Gentleman* states that the following remedy for the foot rot in sheep, has been used with great success by H. Howland, of Aurora, Cayuga Co., for the last thirty years:

Mix flour of sulphur with the salt given to the sheep, in a porportion just sufficient to discolor perceptibly the salt, or about one-eighth part. Sulphur may be had at a wholesale price at a cost of not over two cents. Where local applications are necessary, we should much prefer a solution of chloride of lime, to any other application.



LADY MILLICENT.

A Short-Horn Cow, imported from England, by JONATHAN THORNE, Esq., of Thorndale, Dutchess County, New York, and now owned by ME. SAMUEL THORNE, of the same place.

THE PEDIGREE OF THIS THOROUGH BRED ANIMAL WILL BE FOUND ON THE PRECEDING PAGE.]

Farmer's Accounts.

MR. EDITOR:—Permit me, if you please, to make some suggestions to your readers, that I hope will be interesting and profitable. My object is, to induce my brother farmers to manage their affairs so as to be comfortable and easy in their circumstances.

THE ACCOUNT BOOK.

That farmer who finds it necessary to keep an open, running account with any one, should *enter forthwith*, every item that he ever intends to bring forward in time of settlement. You and I have known good, honest, laborious men, completely at a loss in their reckonings. Some items they set down, other matters they remember, while others still, to bring the account nearer to a balance, they are quite sure of, but forget exactly what, and how.

This careless method sometimes leads to open difficulties, but oftener to suspicions and hard feelings; and no man is harder to reconcile than he who has taken up suspicion against another without corroborating proof.

I have a neighbor, who can neither read nor write, yet has, by his own industry and management, acquired a handsome property. But his motto, from necessity, for ordinary deal, is "pay as you go." A good suggestion, but observation shows that farmers have taken, and will take and give credit. The next best thing is to keep accurate accounts, and if debt and credit both, it will be altogether the most satisfactory in your reckoning and settlement, *always as often as once a year.*

MEMORANDUM AND JOURNAL.

This may occupy the best half of a year Account Book, or a separate book, as your business, or means, or taste shall dictate. In it, enter every business matter, that you can by possibility hereafter need to refer to. For example:

1854, April 10., Sold sorrel colt, will be 3 in June, for \$100, to John Jenks, for cash paid.

May 7., Sold red cow to Thos. Dean, for \$20, took his note at 6 months.

June 1., James Carpenter delivered wheelbarrow, price \$5.00, paid him 12 bushels of corn in full.

July 25., James Brown worked for me 12 days in harvest. Paid him \$15.00 in full.

August 1., Contracted with John Smith to break up my fallow, 20 acres. To be done by September 20th, in good workman-like manner. I pay him \$5.00 an acre; one half when the work is done, the balance before January 1st, and give him my due bill.

Oct. 10., Delivered J. K. 50 bushels corn (old) at 50 cts., two thirds cash received, balance on our store account with him.

Now my brother farmers, if you began business in this way, and have formed the habit of entering purchases, sales and bargains, you can testify to its ad-

vantage in keeping matters straight between you and others. It keeps you from the temptation of thinking and speaking hard things of your honest neighbors, merely because you have not a memory that retains *every thing*, and it will do much to preserve your good name for honesty and fair dealing, when you are able by book, to tell just how things were *at the time*. You will also be preserved from pressing a doubtful claim, when you are not sure you are right.

But this is but one view of the subject. Where I live it is a common remark, that the estate of a careless man is often the prey of punctual creditors after he is gone. Rogues are ready to swear to an account when no memorandum remains to show that they have been paid. Accounts that he might have easily settled when living, now are adjusted at a great disadvantage. Even the honest creditor may be classed with the rest; he may have forgotten too, his own obligation. To illustrate:

Mr. S. died in middle life of consumption. He kept a memorandum. Scores of claims came against his estate, by men who remembered that within a few years they had dealt with him, but had forgotten how he paid them. The book, however, told both sides of the story; and thus saved a considerable amount to his widow and young children.

An uncle of the writer died some years ago. He was a forehanded, substantial, intelligent farmer. His son was administrator. In reckoning with a mercantile firm, where there had been for a long time an open account, to his surprise there was a balance of over \$500 against the estate on their books. A general search of his account books cast no light upon the subject. But upon searching among his papers, a receipt for almost \$600 worth of ship timber was found. It had not been entered on his nor their books. This turned the scale. Both parties, I presume, were honest, but careless. Now, had my uncle settled once a year, and kept a Memorandum Book, in which he should have entered this transaction, the danger would have been avoided.

Would you keep your earnings in your own hands, and that of your family, or have them bestowed where they will do some good service; would you feel easy about your affairs, and make your business transactions straight and smooth, then keep a MEMORANDUM BOOK. L. T. E.

THE PAW PAW & BUCKEYE.—In the last "Companion" inquiry is made in relation to several kinds of trees. The Paw Paw grows in this vicinity in considerable quantity. Young plants may be had for transplanting if wanted; they are from 2 to 20 feet high, growing on nearly every variety of soil, but chiefly in moist, mucky places. The Buckeye grows in some parts of this county, but none in this immediate vicinity.

R. PECKHAM.

New Buffalo, Mich.

On Growing Sound Potatoes.

MESSES. EDITORS: Being away from home, I had not read my September number of *"The Farmer's Companion"* until to-day. I noticed in a piece in that number headed "The Potatoe," this remark on the subject of pitting: "Fifteen or twenty years ago, let the heaps be formed ever so large, not a word of complaint was heard. Is it in the mode of pitting; or has change come over the potato itself. It must be the latter." I desire to say, in my humble judgment, no change has come over the potato, and probably never will, as there is no root that assimilates itself to the nature of soil and climate more readily. Nor has anything I have read satisfied me that the potato is at all radically diseased. The truth is, I believe, that since the general prevalence of the cholera, the potato has been poisoned by a new insect, which probably had its origin in matter decomposed under the influence of cholera atmosphere. Whether, however, it be a new insect or otherwise, or in whatsoever it may have had its origin, nothing can be more certain, than that the rot is caused by an insect about the size of a flea, and very much the appearance. This insect, I discovered about ten years ago, commenced its operations, about the time the potato was in the blow. But latterly, the time of its appearance has varied from that of the time when the potato made its appearance above ground, to the time the sap of the vine ceased to circulate. It is not now as numerous as formerly, but still sufficiently so to materially injure that valuable crop. And when this insect shall have been rendered extinct, the manner of pitting will be, as it was fifteen or twenty years ago, of but little importance.

When the fly is sufficiently in force to kill the top, it commences to die in the leaf. Observing this, I examined, and found that the insect commenced by eating off the stem of the blow if there was any, and then the green of the leaf. And in digging the potato, I found it presented that black dry appearance called the dry rot, and that the end of the potato attached to the stalk or vine only, was affected, unless the whole of it was. Hence I conclude, that the poison was infused into the sap, and thus communicated to the potato while it was still growing. And if the quantity of poison is not sufficient to kill, it continues to grow, ejecting what it can through the pore until it is matured. Hence the importance of digging before the fall rains come on, and the poison is rendered active, and also of housing them while dry.

I have never failed to have sound potatoes when I made free use of ashes, or lime, or charcoal dust, sowing it broadcast, or sifting on, so as to cover all the leaves, and keeping them covered while they are growing. These while they keep off the insect, and prevent the rot, promote the growth of the crop.

I am persuaded that the insect deposits its eggs on the stalk, and if the practice of burning them in the fall was generally adopted, we should soon be free from that plague, the potato rot.

H. N. F.

To Lovers of Pumpkin Pie.

The "Sweet Pumpkin," alias "Cheese pumpkin" or "pie squash,"—is the only true article, in my opinion, for making that most delicious of "yankee notions"—pumpkin pie—and I am not alone in my opinions, for I have yet to see the individual who would not agree with me in this matter, after testing its qualities by the simple but certain mode of tasting. These pumpkins are very easily raised, they will grow on almost any soil if properly tended, and are well adapted to the climate of Michigan. They should be planted about the twelfth of May, in rows four feet apart each way, allowing not more than two plants to each hill. (I don't approve of planting pumpkins among corn as some do,—but will give my reasons at another time.) If the bugs should make their appearance, an occasional sprinkling of plaster and ashes will soon rid the young plants of these pests. When planted in this way the vines will completely cover the ground, and produce several tons to the acre. The shape and color of the fruit resembles that of a small sized dairy cheese, its flesh is very firm, fine grained and brittle, is of a rich orange color, and very sweet. They will keep all winter in a cool dry cellar if picked and stored before "jack frost" touches them.

For feeding to stock I consider a load of these pumpkins worth full two loads of the common field varieties. Cattle, hogs, and horses will fatten on them very fast, and will even select them from other pumpkins when fed together. Much cows, when fed on them, also improve both in flesh, and in the quality and quantity of their milk. I have raised these pumpkins for a number of years, and can recommend them to be "some pumpkins," and the best that a farmer can raise.

I have laid in a good supply of the seeds, which I wish to distribute this winter, among the readers of the Farmer, for *their* benefit, and not my own—except in the sense of doing good. I will therefore send a paper of seeds of the sweet pumpkin, by mail, free of postage, to each individual who will send me six cents in postage stamps, and his address (post paid.) The stamps will barely pay for putting up, and mailing, so you will have the seeds gratis.

D. D. TOOKER.

Napoleon, December 1st., 1854.

Cultivation of Marshes.

EDITORS OF THE MICHIGAN FARMER: I see by the February number of your paper, an article on the "Cultivation of Marshes." I have devoted considerable attention to that subject, and offer the following suggestions.

The earth of which marshes are composed, is not, properly speaking, *soil*—but a living mass, that is growing like any other mass. Now a farmer may as well plant his seed in green leaves as in this muck, or

swamp marsh. To make it productive it must be rotted—the surface must be dried by drainage—the mass, or muck, placed in heaps—the sun let in on the sub-soil to warm it.

This kind of soil contains resinous matter, or an *anti-septic, preserving principle*, for vegetable matter. To digest this anti-septic principle, or overcome it, lime is necessary. It combines with the resin, forming soap—which decomposes the vegetable matter, and it will then decay, and form a rich mould.

This kind of soil also possesses, in a large degree, sulphate of iron, caused by the decomposition of iron pyrites. The lime also combines with this, forming the sulphate of lime or plaster.

When the heaps are well rotted, spread them over the surface, and apply lime bountifully, to aid nature in digesting the anti-septic properties of the soil, and neutralize the sulphuric acid—you have then the best of soils for any plant.

L. V. BIERCE.

Akron, Ohio, Feb. 7, 1855.

Hospital for the Insane at Kalamazoo.

It will be gratifying to that unfortunate class of persons above named, to know what progress has been made in the erection of buildings for the hospital. The site is located a little south-west of the village of Kalamazoo, and nearly adjoining the village flat, on an elevated piece of table land, overlooking the village, the Theological Institution, and a large tract of the surrounding country. There are one hundred and sixty-seven acres of land attached to the institution for a farm. The building is located in the midst of a fine growth of hickory and oak.

We have been favored by Mr. Kellogg, the Superintendent, with a statement of the plan, progress, etc. of the building from which we extract the following: The center building is to be three stories high and seventy two feet wide by ninety six long; two wings extending each way from the center, forty feet wide and four hundred feet long, and two stories high, with a Chapel in the rear of the center building, and an infirmary in the rear of each wing, for the accommodation of the sick. The walls of the center building are carried up about four feet above the third story floor.

At this point the appropriation made for the purpose was exhausted and the work stopped, awaiting another appropriation by the Legislature at its present session to complete the building for the reception of the insane, who are now a burthen upon their friends and the several counties in which they live.

The plan of building seems to be ample for the accommodation of all the insane in the state for years to come. And it is to be hoped an appropriation will be made sufficient to finish the building at an early part of the next season, or so much of it as will enable the trustees to accommodate the present insane. A supply of material is now on hand, ready for early spring operations. This institution will be highly creditable to the State and beneficial to the village in which it is located.

N.

Dr. Freeman on Improved Fowls.

MESSERS. EDITORS:—I am much pleased to learn from very many sources, my once considered humbug and ridiculed fanaticism in endeavoring to direct attention to the superiority of improved breeds of fowls, is beginning to be found deserving much attention—possessing “more truth than poetry;” and that too when such statements as the following come from persons who breed them for their family use and economy only, viz: G. Carman, of Sturgis Prairie, a careful and correct observer of matters and things in general, and attentive to all the minutiae of his domestic concerns, excepting in one particular—that of procuring a proper help mate—writes me, “the black Cochins purchased of you have fully met my expectations. I have now a fine flock of them, the admiration of all who see them, for their size and uniform metallic lustre. I never had half the number of eggs from twice the number of common fowls, under the same circumstances, nor raised so many chickens with the same treatment; in fact, I consider them the farmer’s fowls.” Again, three gentlemen at our late State Fair, to each of whom I sold, the fall previous, a pair of black Cochins, informed me they let them run with their common fowls, and were the only ones they obtained eggs from during the winter; and one of those gentlemen stated he then had a pullet hatch in the spring with a fine litter of chickens, from her own eggs. Again, a neighbor, I. H. Scott, has a Shanghai pullet from my yard, among his common hens, the only one that has laid this winter; and last which I deem necessary to name, though by no means least, W. S. H. Welton, of Grand Rapids, writing under date of Dec. 5, 1854, after ordering a Terrier pup and a pair of Brahma pullets, says, “the Brahma pullet bought of you this summer began to lay at five months, stopped one week, is now laying daily, and will soon complete her hundred eggs.” Since which I have learned she has exceeded that number, and I might go on and enumerate many more cases of superiority of the improved breed over the common fowls.

An inn-keeper in St. Joseph county, says much the largest proportion of eggs he has used this winter, were Asiatics, and no doubt there are over twenty of the common hens to one of the others in his vicinity.

A word or two about my own yard. I am wintering 235 pure blood—over one hundred are cock chicks. All, with the exception of six or eight old hens, were hatched between the last of May and first of August last, (having sold all the older ones.) Since my cabbages have given out, and snow on the ground, I feed one bushel of corn per day—have sold 111 doz. eggs at 25 cts. per doz. since 1st November, besides using them freely in my family. Immediately previous to the present cold spell, they began to exceed the daily expense of keeping; but since which they

have decreased in eggs to not more than half. Still, if I had only the necessary number of cocks, even now they would pay; and too their houses are left open the same as in summer, which I regret, but circumstances now prevent, as they would do better if kept warm.

A few weeks since I killed 36 of my latest broods, after 1st of August, including a few culls of earlier hatch; when dressed they weighed 136 lbs, and sold them at 1 cent per pound extra on account of extra appearance.

On Christmas I invited a few friends and treated them to a Cochin cock, just seven months old, which when ready for the spit weighed 7 lbs. 6 oz., and they all thought they were eating turkey.

I can now select one hundred cock chicks that will weigh alive 900 lbs.

As to their hardiness, I have a brood now a week old, doing finely, and every day since they were hatched the droppings and food they leave freezes immediately in the place they are kept.

I am fully satisfied the improved breeds of fowls may be kept to yield a large remunerative profit of themselves, in eggs and meat, but may be made still more so by putting a proper number of plum trees in their yards. Those in mine of two years standing were acuriosity; the limbs had to be propped they were so loaded with perfect fruit—not the first evidence of a curculio on them—when one tree protected from the chickens did not yield a single plum. A row of grape vines were set, among which the chickens spent much of their time in wallowing, &c., and a greater growth of vines I have never seen notwithstanding the extreme drouth.

Now Messrs. Editors, if you think the above worthy the space it will occupy in your useful paper, allow me to add, and squeeze in also if you can, as the question is so often asked me, "which is the best breed," to now say to any of your numerous readers who may feel interested, of all I have ever tested, I give the *purely bred Brahmas* the preference. They possess ALL the good properties of any other, such as fine form, hardiness and early maturity—quite as free layers, and with me the largest eggs of any, continuing to lay more during this extreme cold weather than any others. I exhibited at our late State fair Brahma chickens weighing near 2 lbs. a piece, whose mother was at the time but 7½ months old. One doz. eggs all single yolk from two Brahma pullets weighed 33½ ounces, they laid daily, some of them every fourth day laid an enormous double "yolker," none of which were weighed. However I consider that weight above the average, particularly for pullets.

WM. FREEMAN.

Schoolcraft, Feb. 5th, 1855.

Among the patents issued from the United States Patent Office for the week ending the 5th inst., was one to John Benn and Benjamin Wright, of Hudson, Michigan, for an improvement in smut machines.

Large Fowls.

DEAR SIRS:—Your valuable *Farmer* reached me this evening, and as I read over its articles full of practical instruction, my eye rested on the article on large Fowls. Mr. Moons' birds are very fine, as all who examined them at the State Fair, can testify. Large enough for all poultry purposes.

Having been for several years interested in the improvement of fowls, and being anxious to call out any items on this subject of general interest, I will with your permission, give you a few weights of birds that have crowed and cackled in my own yard.

One pair of Brahmas, obtained from Virgil	
Cornish,	25 lbs.
One pair, one year old,	24½ "
" Buff Shanghai,	23 "
" Red	22½ "

Eight Fowls,.....95 "

Average weight nearly 12 pounds. One of the Brahma crowsers weighed 15 lbs.; another 14; while the hens ranged from 10 to 11 pounds.

These are extraordinary weights, and are not to be taken as the standard.

Periods or seasons have much to do with the weight of hens. Pullets are heavier about the time they commence laying, and old hens weigh more during this month, if well cared for, than any subsequent ones; while each sex is greatly reduced in flesh during moulting.

Careful and successful breeders are not anxious to raise stock from such specimens, as they are overgrown and are not so hardy, active, or valuable in any respect, except as show cases.

A medium sized, well formed cock, and a large hen, is much more likely to produce full sized profitable poultry.

W. S. LUNT.

Findlay, O., February, 1855.

The Grub or Cut Worm.

On page 291 of the *Farmer* for 1854, I find an article about cut worms from the pen of your correspondent H. As I have had some occasion to notice their destructive work the past season, I will give the readers of the *Farmer* the result of my observations. In the spring of 1853, I plowed a field of seven acres, which was finished as early as the 7th of April. It was an old sod on low land, and had been lying some ten years. This was planted with corn on the 15th of May. The cut worms destroyed most of the first and part of the second planting; so I concluded that early plowing was not a preventive. I was told that late fall plowing was a sure remedy. I had a five acre field of the same kind of soil, which had been mown six seasons; this I plowed late in November of that year, and planted it the 15th of May last. Notwithstanding the severe cold of the winter that intervened, the worms used up the first and a part of the second planting. This convinced me that fall plowing was not an infallible remedy. I had eight and a

half acres of old sod plowed the last of April and first of May, and planted about the 22d of May; the worms took seven-eighths of it. The second planting was done the 13th and 14th of June, and yielded sixty-five bushels of ears per acre, of mixed dent corn, all of which was sound. I had some planted on wheat stubble, which was destroyed the same as that I have mentioned in the other fields; some that was planted after corn was not disturbed by the worms.

Now for the clover sod, plowing, &c.

I had seven acres of clover sod plowed between the 10th and 20th of April. This sod had lain two years; the clover having been killed by the previous winter, the ground was left as clean as a fallow, there being no blue nor June grass in the field. This was planted about the 20th of May, and was not troubled by the cut worms at all. An adjoining field of eight acres of similar soil, which was seeded with clover the same time as the other, but was covered with a sod of blue and June grass, I had plowed between the 18th and 23d of May. The 27th of May the field was ready to plant. While marking the ground I found it was very full of cut worms. I concluded to defer planting till about the 10th of June. We commenced planting on the 9th of June and finished on the 12th. The seed was soaked and covered about two and a half inches deep, and came up in from four to six days. Some fifty hills were destroyed by the worms, and from one to three shoots in many of the other hills. The last plants that were cut by the worms was I think on the night of the 21st of June. The result was, I had a field of good corn, perfectly sound, notwithstanding the severe drouth.

Now, gentlemen, my opinion is, that it makes no difference when the plowing is done; the worms will work all the same if they are in the ground. If any of your correspondents think otherwise, let us hear from them. Being aware that the grub would disappear about the 10th of June, was the reason I deferred planting till so late.

J. V. D.

"Bushnell's Hubback."

MR. JOHNSTONE—Dear Sir: In your notices of the State Fair, in the Nov. number of the *Farmer*, you say that "among the Foreign cattle which were present, the Short horn belonging to Seth A. Bushnell, attracted much notice, on account of his size. He stands very high on his legs, and seemed to us rather coarse in the limb, and hardly square enough in body to come fairly up to our notions of the perfect Short horn."

Now it is no part of my business to defend Hubback's excellencies in lengthened newspaper articles. In his case it is too late in the day for this. His reputation is too well established to need it. To say nothing of the favor with which he has met in the form of first premiums in your State and Ohio, your

strictures are directly in the face of the opinions of the thousands of good judges who have at various times seen and passed opinions upon him. With them it is not his "size" alone that attracts attention. But it is his remarkable combination of size, symmetry of proportions, and quality. You are the first man to my knowledge who has called him "coarse in the limb." On the other hand his fineness of limb as compared with his great weight has been universally recognized and admired. Nor has his length of limb been considered disproportioned. It is true that at your fair he was out of health and condition, with his feet crippled by travelling. When in good plight a straight edge laid along his back will no where admit of the insertion of a man's hand under it.

Yours Respectfully.

SETH A. BUSHNELL.

Hartford, O., Jan. 13th. 1855.

[As we promised in the last number, the above letter from the owner of "Hubback" is published, with the only comment, that we adhere to the opinion which Mr. Bushnell has quoted, and while admitting the excellencies of Hubback as a very fine animal, we still think that he is not by any means perfection. Mr. B. himself, much as he thinks of him, will hardly claim that he is the best short horn that has ever been raised, or that he would suit the fancy of all breeders.—Ed.]

Singular Occurrence.

About ten years ago, my father had, in one of his fields, half an acre of Canada thistles, in the form of a half circle, and he adopted the following method of destroying them:

On the first of June, the whole field was plowed and harrowed. As soon as the thistles appeared above ground, the thistle-patch was plowed again. During the hot weather of July and August, this piece of thistle ground was plowed carefully six times, each furrow raked or shoveled out, exposing to the sun every particle of root as deep as the plow was permitted to run. About the middle of September, the field was sown with wheat. The next harvest, the thistle ground, which had been plowed so often, was not harvested, for it produced nothing but chess. (It had previously borne a heavy crop of thistles and clean wheat.) The remainder of the field produced a heavy crop of clean wheat.

The exact dimensions of the thistle ground could be marked by the chess. Not a single thistle has since ventured to adorn the old spot, nor has it ever since, produced a good crop of wheat—it is usually one-half or two-thirds chess.

I am now convinced, from this and from more recent occurrences, that in some instances, wheat will produce chess.

B. PARKER.

Greensland, N. Y.

HORTICULTURAL DEPARTMENT.

J. C. HOLMES, EDITOR.

The Cranberry and its Culture.

The cultivation of the cranberry is receiving some attention in Michigan, and we have been requested by several correspondents to give such information as we possess respecting it. Although we think the subject an important one, we have given but little time to the study, and none to the culture of the cranberry, therefore we cannot speak from our own practice or observation.

The common American cranberry (*Oxycoccus macrocarpus*), and the high cranberry, (*Viburnum opulus*) are indigenous in Michigan.

We understand that a gentleman in, or near Coldwater, Branch County, is cultivating the cranberry to considerable extent; we would thank him to give us an article stating his mode of culture, and success.

In the annual report of the Secretary of the Board of Agriculture of Massachusetts, January 1854, we find a valuable article upon the cranberry by the Secretary, Charles L. Flint, Esq., from which we extract the following:

There are two prominent and well known species of this fruit; the small or European, (*Oxycoccus Palustris*), and the common American cranberry, (*Oxycoccus macrocarpus*). This plant was formerly classed as one of the whortleberry genus, (*Vaccinia*), but is now considered by many scientific men, as forming a group of four or five species, of which, the two mentioned above, are most commonly known.*

The roots of the small cranberry are creeping with many stems, which are very slender, wiry and trailing, with many leafy branches. Its leaves are alternate, small, perennial, somewhat oval, rolled back at the edge, erect on small stalks. They are glaucous, or of a grayish color underneath. The flowers are small, drooping, and very beautiful; each consisting of four distinct petals rolled back at the base, of a deep small, imperfectly developed leaves or bracts. The berries of this species are small, being about as large as an ordinary sized pea. In the early part of their growth, they are spotted, very much like a sparrow's egg, the spots being a little smaller, but, finally, in favorable situations, turn to a deep red. They have an acid taste, and are much used for tarts and jellies. It delights in marshy bogs covered with moss. It grows in great abundance in Russia, Sweden, and to some extent in Scotland and the north of England. It is also found in Nova Scotia and New Brunswick, and that vicinity, where it bears very abundantly, and along the St John's River, to a great distance from its mouth. It is met with in some parts of Massachusetts also. I observed it in the swamps of Provincetown, where it is called the "spice cranberry." It is imported into England, from Sweden and the north of Europe, in large quantities, and though with us it would be considered so far inferior to our common cranberry, it is more esteemed by many.

The common American cranberry is a native of North America. It grows and flourishes in mossy swamps and bogs, as well as on sandy soils, from high northern latitudes, to North Carolina on the south, and to Minnesota on the west, where it produces very

abundantly every other year, and is not excelled in size or flavor by cranberries in any part of the country. It is bought in large quantities of the Indians.

The stem of this species is larger than that of the small cranberry just described, and is commonly from a foot, to four or five feet in length. It is sometimes much longer than that. I have seen it from twelve to fifteen feet in length, throwing up many rising branches, sometimes to the height of eight or ten inches. The leaves are about one-half an inch broad, the second year, when full grown. On the new spring branches, which bear the flowers and berries, they are crowded towards the top. They are of an oblong, oval shape, the margin curved back, divided in the middle above and beneath by the costa, from which veins run to the margin. The flowers are frequently in pairs, very elegant, held towards the end of the new spring branches by erect, reddish stalks, much bent near the ends, giving them, together with the calix and flower-bud, before expanding, the appearance of a crane's neck, head and bill, whence it derives its name cranberry or cranberry. The flowers continue to grow until immature berries are produced on the stem in July, and in some instances, even into August. The berries are of a yellowish green before ripening, and when ripe, of a bright scarlet or carmine color, and in some varieties, nearly black, or light and speckled with deep red, varying in shape, from round to oval oblong, about one-half of an inch in diameter, of an agreeable acid taste, and often clinging to the vines during the whole winter. If gathered before fully ripe, they have not that delicious acid taste which they have at their maturity, and are, therefore, far less valuable than when left to ripen on the vines.

The cranberry grows naturally in watery bogs and morasses, and sometimes on high mountains. I have seen it growing luxuriantly and producing in abundance on marshes exposed to, and covered by high tides, on coarse sand, perfectly white and entirely destitute of organic matter of any kind, though accessible to moisture; on pure peat, on peat covered with sand, on dry, loamy and gravelly upland, and on the richest garden mould thoroughly tilled.

Analysis.—A valuable analysis of this fruit has recently been made, at my request, by Professor E. N. Horsford, of Cambridge. From this analysis it appears that the

Percentage of water expelled at 212° F., is	88.78
Percentage of ash, " "	.17
Woody fibre, tissues, organic acids and other organic matter not decomposed at 212° F.,	11.05

	100.00
Percentage of potash in the ash,	42.67
" " soda,	1.77

This explains why this fruit flourishes so well on the sea-shore, where it derives its alkalies; the amount of potash, though small, may be derived from the sea.

From this analysis, it will be seen that only .17 per cent., or less than two-tenths of one per cent. of the cranberry is found in the ash, as inorganic matter, derived from the soil, all the rest being derived from the atmosphere and from water. The results of experience are, therefore, strikingly corroborated by the deductions of science, that the cranberry will grow where nothing else will. It explains, too, how it is that this fruit seems to require nothing for its perfect development, but air and water, as will appear more distinctly hereafter.

Modes of Cultivation.—The cranberry may be propagated from the seed, or from cuttings, or by trans-

planting. The last method is most frequently adopted. The first crop obtained by planting the seed, will ordinarily be a year or two later than that produced by wild plants transplanted. It is, therefore, found to be more profitable to transplant, except in one or two sections of the State, where the interest in transplanting has been so great, that ten dollars a square rod is not an uncommon price for plants, where the ground is thickly covered. When it is desired to propagate by slips or cuttings, the usual practice is to gather a large quantity of vines and run them through a common hay-cutter, till they are reduced to the length desired, an inch or so, when they may be sown broadcast and harrowed in, though it is considered best, on some accounts, to sow in drills and cover properly. These slips very soon take root, starting from the base of the leaves, and at the same time shooting up many rising branches. If sown broadcast and harrowed, they should not be overflooded till the slips have taken root, or otherwise, many, remaining uncovered, will be floated off.

In the case of cranberries growing wild, it is a common and well-known practice to flow or cover them with water during the winter and early spring. This is very desirable, if the situation is such as to allow it, though it is not generally considered as essential by those who have been most successful. It is often useful, where there are facilities for flowing, to let the water remain a few inches deep till the spring is well advanced, (some think, till the first of May, or even later,) to retard the blossoming till there is no danger from frosts. Facilities for flowing are desirable in the cultivation of cranberries, also, and if the plantation could be so arranged as to flow very quickly, it might be of essential service, occasionally, during the spring or autumn.

As the cranberry, in its natural state, is more frequently found growing in a low wet swamp or marsh, that kind of land is generally selected for its cultivation.

The mode of setting out the cranberry in such a swamp, if we suppose it to be covered with bushes and grass, and surrounded by a sandy soil, or in the immediate neighborhood of sand, would be as follows: First, cut the bushes and pare off the surface turf to the depth of several inches, so as to remove, as far as possible, the roots of grasses and bushes; then level the whole by filling in sand to the depth of from two to four or five inches, according to circumstances. It is desirable that the surface of the sand should be but slightly raised above the level of the water of the swamp, meadow, or pond filled up, so that, by digging into the sand with the hand or the hoe, the water may be found within two or three inches of the surface. The plants should be taken up with the spade in square turfs, of the thickness of two or three inches, this being the depth to which the roots generally descend. When the ground has been levelled and prepared as directed above, it will be found more convenient to draw straight lines and set the roots about eighteen inches apart one way, and one foot the other, in small clusters of about five or six together, the grasses taken up with them in the turf having first been removed from them. The practice of some has been to set the turf, thus taken up, into the row without removing the grass; but the vines are so tenacious of life that there is little danger of their dying, even if all their natural earth is removed from the roots; and those who have followed this method have generally had much less trouble in the subsequent cultivation. Some prefer to set them in rows at a

greater distance apart, having the rows two and a half or three feet, and the plants one foot, in the rows. The distance may be regulated, somewhat, by circumstances. If the sand is thick and loose so as to make it impracticable to cultivate the vines and pull up the grasses and weeds, on account of the danger of starting the roots, the closer the plants are set, the better, since they will thus the sooner cover the ground and get the advantage of the grasses. Where it is not intended to hoe the plants in such situations a foot each way will probably be the most convenient distance between the plants.

Many fields which I have seen, are thus arranged. Swamps like those described, which have always been considered as entirely incapable of improvement, have been reclaimed in many instances, with great labor, and filled up with coarse, white beach sand, often, where the swamps has been covered with water, to the depth of three or four feet. The plants have then been set out in the manner described, from one foot to eighteen inches apart, in holes made in the sand by a small stick, hoe or dibble, and sometimes with the hand; a small cluster of roots taken from the sod in which they had been taken from their natural position, freed from grass and roots, being placed in each hole. In such a situation there will always be moisture enough for them.

Queries and Notes.

To the Editor of the Horticultural department of the Michigan Farmer:

I wish through the *Farmer* to be informed upon the following matter, as I think it interests very many of your readers:

1. Is it probable that the nursery establishments of Michigan are capable of supplying the demands of the fast increasing population of our state?
2. Is it a warrantable practice to import trees and shrubs from western New York, subject to the delays so very common upon the thoroughfares?
3. Does not an exposure of twenty days, without moist earth or water, seriously endanger the vitality of green plants and shrubs? C.

As our correspondent "C," has propounded the above queries for the purpose of eliciting information upon a subject that is of vast importance, not only to Michigan, but equally so to all the new States, we cheerfully comply with his request.

The nursery business has been supposed by many to be a very lucrative business, and that any one who could insert a bud or graft, and be tolerably successful in having them grow, must be competent to manage a nursery, hence many in Michigan and other states have entered upon the business, with the expectation of becoming suddenly rich; but finding that capital, time, labor, practice and much study are requisite in order to carry on the business successfully in all its branches, many have abandoned it wholly, or in part. In some cases the growing of apple trees is continued, but in so careless a manner that but little reliance can be placed upon the trees being correct to the name.

There are nurserymen in Michigan who understand their business, who know that it is for their interest, and the interest of the state, that they should transact their business understandingly and correctly; and they are determined so to conduct their nurseries, as to gain the confidence of the people. But many of these nurseries are young, the demand for trees is great, and increasing, and it is our opinion that the *reliable* nurseries of Michigan cannot at present supply the demand. We recommend to purchasers of trees first to patronize the reliable nurserymen of their own State to the extent to which their orders can be filled, and for the balance, send to a reliable nurseryman of some other State.

We would not advise purchasers to patronize careless nurserymen of this or any other state, but caution them against it. If trees are to be purchased from a foreign nursery, send your orders direct to the nurseryman from whom you wish to purchase, then if you are not honorably dealt with you have your remedy.

But if orders for trees are given to irresponsible itinerant tree peddlars, instead of honest, practical nurserymen you must expect to be "Barnumed."

Every nurseryman, and every fruit grower should strive to put a stop to the practice, that has become very prevalent, of giving orders to irresponsible itinerants instead of the responsible nurseryman.

Under the circumstances above named, it is warrantable to import trees from western New York, or even from Europe. The freight agents at the railroad and steamboat depots are not justifiable in retaining trees in store. Trees should be forwarded to the exclusion of less perishable articles.

Nurserymen who understand their business know how to pack trees so that, under ordinary circumstances, they will not injure if they remain in the package a month, or even a longer time. The chances for delay in transportation are so great, that trees, intended for a distant port, should be carefully packed in moss and straw before they leave the nursery. Sometimes trees that are well packed at the nursery are so roughly handled on the road that they are of but little value when they arrive at their destination. If upon opening a parcel of trees they are found to be dry, do not plant them in their places, or throw them away, but open a trench in sandy or light soil if you have it, lay the trees down flat in the trench, and cover them completely with the moist sand, let them remain buried for a week, then examine them, and in most cases the condition of the trees will be found to be sufficiently improved to warrant their being set. After the trees are set, mulch them with tan, saw-dust, or straw, and in extreme cases the trunk may be bound with straw from the ground to the limbs, and kept moist by turning down water from above. We have often resuscitated apparently dead trees by this process.

Lice on Trees.

MR. EDITOR: I will not pretend to decide whether trees "properly pruned, and washed with strong lye, will ever be infested with lice or not." I apprehend however, that these things alone will not prove effectual in preserving from their attacks. Still I do believe that it may be possible by a proper course of cultivation, (which includes many other circumstances besides pruning and washing) to render trees quite exempt from attacks of these parasites. For the benefit of your correspondent D. E. Cranston and others I will send you a remedy which I have often recommended. It is of easier application than the soft soap wash Mr. C. used, (see *Farmer* for October.) harmless to the foliage and sure death to the Aphis. Make a strong decoction of Quassia chips—say of the chips 1 lb. to 8 galls. of water, boiled, to 6 gallons. Apply thoroughly with a garden syringe. To two or three trees badly infested, I found it necessary to make a second application. Previous to this experiment the trees had ceased growing, the leaves curled up, and the shoots and limbs became discolored and dirty. I had tried various remedies but with only partial success, until I heard of quassia. The trees in each instance soon after commenced a new growth, making vigorous shoots entirely free of aphis. For the bark and scab louse, various applications are recommended, as strong lye, potash water, white wash, dry ashes, sulphur. O. S. Rathbun an intelligent cultivator in an adjoining town made an experiment last spring which promises to be quite successful. He took tar and linseed oil equal parts, mixed by beating, and apply thoroughly, while warm, with a paint brush. To make the experiment he took three apple trees large enough to bear a barrel of fruit each. They were literally covered with the coccids. He said he had rather destroy the trees than have them remain thus diseased in his orchard. Now for the result. The trees made a growth of in many instances 2 to 2½ feet while that of the previous year was but a few inches. The composition applied to the trees cracked and peeled off, and with it came the shell of the louse. My prejudices are strong against applications which shall form a coat impervious to the air—deeming air important to the healthy action of the bark. Still several circumstances have come under my observation which tend to shake my theory that such applications must be injurious to the trees. A few days since I made a visit to Mr. Rathbun, and saw the trees I have described. They were clean and seemed to be healthy; save in the crotches of the limbs there was little or no appearance of the application remaining, but few scales were seen and these seemed to be dead. I found but one small twig with a few lice upon it alive, this evidently had been passed over when the application was made. I noticed quite a number of the buds were dead. Mr. R. accounted

for this by the application being made late in the spring. To be harmless it should be done before the buds start. He intends to go through his orchard early in the spring and subject every affected tree to this treatment. I would advise those troubled with this insect to take one or two trees to experiment upon. I would suggest that when the composition peels off the trees be thoroughly washed with strong soap suds. Although the experiment seems so successful and the trees uninjured after the lapse of a year, my fears can only be allayed by knowing that the future life and health of the trees was not thereby endangered. As a wash for fruit trees I know of nothing equal to strong soap suds—safer than strong lye or potash water, cleansing the trees of moss, dirt, and stimulating the bark to healthy action. If applied at the right time it will most likely destroy lice also.

A. G. HANFORD.

Waukesha, Wis., Feb. 1885.

Horticultural Operations for March.

NURSERY.—Scions of fruit trees may be cut, and root-grafting continued till the last of this month. Trees in the nursery rows that are ready for sale should be pruned and put in good shape for the orchard. Where there is a large stock of trees, it is well to begin early in order to finish pruning previous to the time of selling.

We dislike the practice of pruning one and two year old apple and pear trees into slender whip-stocks, let the side branches grow upon the whole length of the stock if they will; cutting them off, as is the practice of many, causes the trees to run up tall and slender, and when it is set in the orchard the head bends over, and the trunk becomes crooked and twisted out of shape, because it is too slender to maintain its proper position.

Prune the stems of young apple and pear trees in the nursery rows as little as possible, the growth will then be stouter, stronger and better; form them into the proper shape when they are of sufficient size to transplant into the garden or orchard, and they will give far better satisfaction than if run up slender and weakly.

ORCHARD.—Look through the orchard and put the trees into good shape, prune when necessary.

If any of the trees are to be engrafted the work may be commenced the last of this month and continued into April.

The trees should be washed early in the season, before the buds expand, so that the washing may be extended up the main branches without causing injury to the buds.

A good and cheap wash for trees and plants, and one that is easily procured, is the suds of the kitchen. Let the suds be saved and while at a moderate temperature be applied to the trunks and limbs of trees with a brush or cloth, and the beneficial results will soon appear.

The bark lice, or scale insects of the apple tree, are not easily destroyed until the time of hatching, which is in May and June, a wash of strong soap suds, or weak lye will at that time insure their destruction.

If new trees are set, do not leave them until they are well mulched with some material that will keep the earth about the roots cool and moist during the hot, dry weather of summer. Mulching is far preferable to watering.

GARDEN.—Trees and shrubbery should be pruned, grapes should no longer be neglected, but be pruned forthwith. Hot-beds should be in full operation for the production of early vegetables. As soon as the frost is out of the ground and the beds are sufficiently dry, the Asparagus beds should be forked over, forking in a sufficient portion of the manure with which they were covered during winter, to make them rich. If the Asparagus beds are forked over after the plants begin to grow, a loss of a portion of the crop will be the consequence.

Want of room prevents a continuation of these hints for this month.

Inquiry about Apples.

EDITOR FARMER:—I have uniformly been very successful in preserving winter apples, but this winter I have a difficulty to contend with that is new to me, and which I do not "find in the books." Some almost entire barrels of Roxbury Russets are covered with spots of bitter rot, from an eighth to a quarter inch in diameter, and about the same depth. Perhaps you, or some of your correspondents may explain the cause and remedy. I think fruit commenced a new growth, as potatoes will, when rain succeeds a long drought, and were not well matured at gathering time, and the unusual mild weather we have had this winter, has caused apples to sweat, the winter storage was not cool enough to keep them well, and perhaps the condensation of moisture, in drops upon the apples may have caused the bitter rot spoken of. Apples require a very cool temperature, as little above the freezing point as can be with safety.

KALAMAZOO.

AMERICAN MADDER.—The experiments which have of late been made with home-grown madder, have proved that when properly treated, American is equal to the best French madder. Like Turkey, Dutch or Alsace madders, the American requires the addition of a little chalk to produce the best effects.

During the past winter, the Merrimack Company have used with great success, some madder grown in Montague, Franklin Co., Mass., and are now about to dye some calico with this Massachusetts madder to be exhibited the New York Crystal Palace. Within a few days, the Merrimack Co. have received a small sample of madder grown in Georgia, which proves to be an excellent article—quite equal to that of Massachusetts.—*Lowell Courier.*

LADIES' DEPARTMENT.

A Good Wife.

From the Persian.

A modest, chaste, and an obedient wife
 Lifts her poor husband to a kingly throne :
 What though the live-long day with trials be rife,
 The solace of his cares at night's his own.
 If she be modest, and her words be kind,
 Mark no: her beauty, or her want of grace ;
 The fairest woman, if deformed in mind,
 Will in thy heart's aff-ction find no place.
 Dazzling as Eden's beauties to the eye,
 In outward form ; foul is her soul within.
 Better in dungeon, bound with chains, to lie,
 Than meet at home a wife of frowning mien.
 Better bare feet than pinching shoes. The woes
 Of travel are less hard than boots at home.
 Contentment's door upon that mansion close,
 Whence wrangling women's high-pitched voices come

Washing Still.

DEAR FARMER:—Perhaps you think the washing question settled by this time, or at least so much has been said that more will be stale. As it is a business requiring more strength and energy, probably, than any other branch of household labor, demanding weekly repetitions, what discussion can do to lighten it is worthy the attention of house-keepers. I judge Marticia to be better supplied with "elbow-grease," than the majority of the sisterhood, to which must be added a still more essential article: joint stock, not in "Bank," but in back. We have to deal with things as they are, and as lack of strength is one of the apparent items in most of our women, we must find something to balance it.

I am well aware that this objection to sal soda is often urged against it, but it seems to me, without good reason, at least with no more than can be brought against common soft soap. In making this complaint against a new washing composition, we forget the time when the same cry was raised against our cherished article, common soap. Sal soda, if I mistake not, is the principle ingredient used by bleachers in whitening linen and cotton, and though they do not wear as well as brown goods, much is owing to their being made lighter. In washing, I think clothes are worn more by rubbing, than by the solvents used in cleaning them; and when sal soda is used garments wear more evenly, because they are not rubbed so much harder in some places than in others, which must be done when common soap is used.

The editor's washer, undoubtedly, had other than farmer's clothes to wash,* else she had found soap necessary in boiling, as we are obliged to depend much upon this method of cleaning, which, when thought of, is found to be entirely rational. The object in using soap is this: Dirt is held to the cloth by some adherent which must be dissolved before the dirt will rinse off. Glue, sugar and starch, are soluble in water, but grease requires an alkali; hence, soap is used,

[* Yes; she washed for a blacksmith and a waggonmaker.—Ed.]

and as boiling "suds" will not only consume the oil faster, but penetrate easier, boiling facilitates the cleansing.

In clothes but little soiled, the "rinsing out of the soap" may be the more important business of boiling, the soap on them being sufficient to remove what of stains still remain, but in the heavy dirt stains of the farm-house laundry, this is not so.

Seeking the best way, sincerely,

Mrs. E. P. F. BRADNER.

Floral Hill, Jan. 1855.

House Keeping.

MR. EDITOR: In your February No. of the *Farmer* I notice a lady wishes to be informed of the best method of washing white flannels. As the result of some experience I send the following:

To wash white flannel, you need plenty of pure soft water, and clean soap, either hard or soft, (but not very new.) Before wetting, the dust should be shaken from the articles. Have the suds prepared as hot as the hand can bear. After a good rubbing throw them into another suds, turned wrong side out; then rinse in hot water, with a little blueing, *wring very dry, stretch and shake them before hanging up.* Never rub soap on flannel; as it shrinks it, neither should it be put into cool or cold water; or be allowed to remain long wet. Let it be pressed on the wrong side, with a heavy cool iron. White woolen hose should be washed in the same manner. The best way of drying them is on "stocking boards" shaped like a foot and leg, with strings to tie them on the line; this keeps them from shrinking, and they look nicer than when ironed. These boards can be made by any Yankee whittler. Let the shape be traced with a pencil upon a thin board, and it is easily cut out. These are particularly nice for infant's socks.

Gentlemen's white silk handkerchiefs, should never be washed in hot suds, as it turns them yellow, so does a hot iron.

White silk hose should be washed in cool suds, and rinsed in water with a slight tinge of cochineal, or carmine. If dried upon the boards they will look nearly as handsome as new.

Can any of our lady friends furnish a good recipe for crackers?

NOT A YOUNG HOUSEKEEPER.

[We have had excellent crackers for home use made in our own family from the following recipe: Take six ounces of butter with two pounds of flour, and rub them together until they are thoroughly mixed. Add a teaspoonful of saleratus or soda, and sweet milk enough to make the whole a stiff dough, which must be rolled out, and beat with a rolling pin thoroughly, then rolled out and cut into forms, bake in a quick oven, and then dry.]

We thank our friends for the above excellent receipts for washing flannels and silks; many house keepers will be benefited by them.

In addition to the receipt for crackers we give the following for a

HARD TIMES PUDDING.—Take half a pint of molasses, half a pint of water, two teaspoonful of saleratus, one large spoonful of salt; thicken with flour to a tolerably thick batter; put it in a pudding-bag, or better still, in a mould if you have one, leaving plenty of room for it to swell out, say nearly one half. Boil it steadily three hours; it will be good without sauce of any kind; but a little butter or cream, or butter and sugar made into sauce with flour and boiling water and spice with a little nutmeg, will be found a great addition.

The *Hartford Times* says of the above: "We can speak for the excellent qualities of the pudding, having tried it, and found it 'a f.ct.'"

And so have we; and one time did not satisfy us, again and again has it smoked upon our platter in its plump brown roundness, pleasant to look at and delicious to taste. Try it; it is cheap, easily made, and whatever is left may be sliced and eaten as plum cake; it is excellent.

According to promise made last month, we insert the following, which was originally published in the *Farmer's Companion*. Some house keepers may object to this mode of making bread, because they say it takes too much time and care; but without care and attention *good bread* cannot be made. How many miserable mixtures, miserably baked are put upon our tables and called bread, that have no "right or title" to the name!

RECIPT FOR MAKING BREAD.—*Editors:*—I take the liberty to write my experience in bread making, hoping it may be of service to some of your many readers.

First, I begin with yeast, for if this is not good it will not make good bread. Take half an ounce, or two handsfull of good hops, and throw them into about two quarts of water, and let it boil down to about one quart. Then strain it boiling hot, on to two handsfull of flour and two of malt. Work out the lumps and strain it again through a cullender. It wants to be about as thick as gruel. When blood warm put in a gill of bakers' yeast, and rise in a warm place, eight or ten hours. Then put it into a small jug or bottle and set it away in a cool place. Put the cork in lightly at first, so that if it rises more it will push out the cork instead of breaking the bottle. It must never be suffered to turn sour. If kept very cool it will keep a week or more in hot weather. When you want to make bread, boil about a dozen good sized potatoes and mash them up with the skins on them, stir them up with cold water till they will not scald, put in about half a pound of flour, then

warm water till it is a thin batter; make it about blood warm and put in a gill of yeast; this is called ferment. Set it in a warm place to rise over night; it ought to rise and fall. Then get out about seven quarts of flour into your bread tray, put half of it into each end with your partition board between; strain the ferment through the cullender into one end, and then stir in blood warm water till it is a very thick batter. This is the sponge. Let this rise up till very light or till it begins to fall. Mix in the rest of the flour with as much warm water, and two tablespoons full of salt dissolved in it, as it requires to work it into dough. Then take out a part at a time on to your moulding board, so as to knead it easily and smooth; scrape out your tray clean, and put it back in one end of the tray again to rise. Let it rise an hour or more or until it rises to about two or three times the bulk of the dough. Then knead it again and put in pans to rise. When risen enough, say 20 or 30 minutes, according to the warmth, set in the oven to bake. It wants to bake about an hour.

You can start the yeast with almost any kind of rising and a little molasses, but sometimes you may fail, owing to the proportions, temperature, &c., but it is best to use bakers' yeast and malt. A little practice will make all plain and easy. Be particular to keep the tray and all the fixtures clean and sweet.

ORPHA CLARK.

Ecorse, January 13th, 1854.

EDUCATIONAL DEPARTMENT.

Agricultural College.

MR. EDITOR: One of the most interesting features of the present time, (at least to me) is the awakened interest on this topic. Naturally sanguine in temperament, I have been expecting to see a deep interest on the subject of an appropriate agricultural education, but I confess my most sanguine expectations have already been more than realised. For six years past, in articles published in various local periodicals and as occasion has offered, in conversation and public speeches, I have been advocating this subject, and also urging the importance of a College devoted to this particular interest.

Indeed I have, in full confidence that the thing would finally commend itself to the good sense of the people of Michigan, gone so far as to fix on a location, and to take incipient steps for the establishment of such an institution. Some two years ago, in an article published in one of the papers of this city, after giving an outline of the course of instruction, &c., I used this strong language, viz: "Such an institution we need and must have."

On the subject of a separate institution, I have been considered as standing alone until recently. In 1850, while the convention to revise the constitution was in session, I urged on that body, through the "*Kalamazoo Gazette*," of which I had the temporary charge, the

importance of providing for the establishment of such a college. I am much gratified, now, to find that there are many of the leading men in this State who have taken the same position. I have never for one moment wandered from the position which I had taken in regard to this subject. In an article, in the *Adrian Watch Tower*, in 1852, I used this language, viz: "I proposed the establishment of an Agricultural College, (full grown and independent) by private enterprise, to receive benefactions from the State as it may merit them, and that a part of the swamp lands be set apart for the purpose of forming a fund for this object."

I am very glad to find such men as yourself, J. C. Holmes, A. Goodridge, M. Shoemaker and others, coadjutors in the enterprise. So far at least as the establishment of an independent institution and the appropriation of swamp lands are concerned, if there is among us any difference of opinion in regard to details, I think this could be perfectly harmonised, by conversations together.

Michigan is yet destined to take the lead in this kind of education. An institution of this sort, with a suitable endowment, under the charge of those who would feel a deep interest in the whole scheme, would be made the glory of the Peninsular State, and become the desired resort of multitudes of youth aspiring after a high order of intellectual development, as connected with the practicalities of life.

By-the-way, I think the whole system of instruction should be eminently practical. Every theory should be brought to the test of experiment. In this way we shall gain more intellectual development, than in the ordinary mode, besides the pupil will know what application to make of what he has learned.

I am regarded by some as being enthusiastic on this subject; but this I do not consider any reproach. We can never succeed in any enterprise without some degree of enthusiasm. My hopefulness, always large, has been considerably developed on this subject of late, by reason of the position taken by the gentlemen referred to above. *An Agricultural College we want and must and will have.*

Mark that. Its advantages I have so fully argued heretofore, in your paper and others, that I need not report them now.

E. H. PILCHER.

Adrian, Mich., Jan. 16th., 1855.

[The above letter was crowded out of the last number of the *Farmer* for two reasons. 1st. because we did not receive it in time, and also by reason of giving up so many pages to the publication of the premium list. We publish it now in justice to one who has written and said a great deal to awaken attention to the necessity of furnishing the means to acquire a proper agricultural education. The action of the Legislature as embodied in the bill which we publish on another page, shows that the hopes of the friends of Agriculture are about to be realized.]

On Teaching Fractions.

MR. R. F. JOHNSTONE:—Since the cultivation of the soil is for the present suspended by the regular order of Nature, it is very proper that we turn a portion of our time to the cultivation of the mind, particularly the mind of the young, for whose benefit we should aim to live; and as the season of the year has now arrived when our sons and daughters are, or should be deriving the benefit of common school instruction, I have thought proper to communicate to you the following original method of showing the reason of the rule for reducing common vulgar fractions to decimal, which in most treatises on Arithmetic reads as follows: "annex a cipher to the numerator, and divide by the denominator, annexing a cipher continually to the remainder until the operation of dividing has been carried to a sufficient degree of exactness." It is known to every scholar that by this rule the division may frequently be continued indefinitely without ever arriving at a perfectly correct result; but the why and wherefore of the rule is not known to every school-boy; if, therefore, the following method of demonstration is, in your judgement, worth the space, you are at liberty to insert it in the educational department of your highly useful journal.

Fig. 1 is a measure of 1 inch divided, as usual upon the scale or rule of mechanics, into 16 equal parts, represented by dots below the line, answering to the denominator of a vulgar fraction, 14 of which parts are represented as being used by dots above the line, answering to the numerator; the measure, therefore, is expressed 14-16 of an inch, and we wish to find its equivalent decimal fraction.

For this purpose draw a line of indefinite length, and

10 9 8 7 6 5 4 3 2 1
10 9 8 7 6 5 4 3 2 1

with the dividers take the numerator 14, as a unit of measure, and apply it 10 times to the line on the upper side, and mark the divisions; then with the dividers also take the denominator, 16, and apply it to the lower side of the line, commencing at the same point as before. It will be seen that by thus applying the numerator 10 times to the line, we form a scale or rule divided into tenths, or ten equal parts; and that the denominator can be applied to, or is contained in that scale only 8 times, but by applying it 10 times, we form another scale divided also into tenths, and the scales it is evident, bear the same proportion to each other, as the two divisions of the line in Fig. 1, 14 and 16 which have been taken as the units of measure in forming the two scales in Fig. 2. Now by thus applying the numerator 10 times to the line we multiplied it by 10, or, which is the same thing, annexed a cipher to it, thus making the scale 10 times as long as in Fig. 1; and then by finding how many times the denominator is contained in that scale we have divided by the denominator; $140 \div 16 = 8\frac{1}{2}$; that is 8 tenths and $\frac{1}{2}$ of another tenth, since we are

now measuring upon a scale divided into thirteen equal parts instead of 15 as in Fig. 1: and in the same manner it will be seen that if the line be drawn long enough to contain the numerator 100 times, or two ciphers be annexed, the denominator will be contained $1400 \times 16 = 87\frac{1}{2}$ times; that is 87 hundredths and one half of another hundredth, since we should now be measuring upon a scale divided into 100 equal parts by continuing the line long enough to contain the denominator 100 times, and by thus continuing to lengthen out the scale 10 fold, or annexing ciphers while there continues to be remainder, we may approximate to any necessary degree of exactness; for if we neglect the fraction $\frac{1}{2}$ in the first division, the quotient figure 8 will differ from the true value by less than one tenth; and if we neglect the fraction $\frac{1}{2}$ in the second division, the two quotient figures, 87 will differ from the true value by less than one one hundredth; and if we again lengthen out the scale ten fold, or annex another cipher, the denominator, in the present case, will be contained exactly 875 times; $1400 \times 16 = 875$, which is read, 875 thousands, and written with a point (.) before it as above, to distinguish it from whole numbers. Had there been remainders after the third divisor, the first three quotient figures would have differed from the true value by less than one one-thousandth, &c. The result can easily be proved, for $14-16 = 875-1000 = 7-8$ by reducing both to the lowest terms. The accompanying diagrams may be made proportionally smaller, to accommodate a more convenient sized illustration. The most simple and plain illustration should be used to assist the pupil in comprehending the operation of Arithmetic; and now in conclusion I would say to each and every teacher of common schools,

"Such is my plan; if better thine,
Freely impart, or make use of mine."

Respectfully Yours,

J. C. ROGERS,

Grand Rapids Mich. Dec. 25th. 1864.

A Chess Incident for "A. B."

MR. EDITOR—Sir: In looking over the October number of the *Farmer*, I noticed an article headed "Chess Crops at Thornapple," signed "A. B."

I think the writer of that article makes rather a bold assertion, when he says wheat never turned to chess, there, nor anywhere else on this earth; for I think many of our most observing farmers have discovered that in certain cases wheat will turn to chess. Because "A. B." never saw anything of the kind, he concludes nobody else ever did.

I have taken up my pen several times, thinking I would give the numerous readers of the *Farmer* a few facts in regard to chess, but have as often laid it aside; but, Mr. Editor, if you will bear with me a little, as this is my first attempt at writing for the *Farmer*, I will state a few things, that have come

within the range of my observation, for the benefit of "A. B." and others:

In the spring, I think of 1847, I moved from here to McHenry county, Illinois, and arrived there the 17th of April. I found the wheat almost winter-killed; especially on the praries. In the oak openings or barrens, it was not wholly dead. In little hollows and along the fences and side-hills, where the snow had drifted in, the wheat looked as fine as I ever saw at that season of the year. In the barrens, on digging up a stool, there would be a few green roots that appeared to be alive. About the middle of May, the wheat in the barrens looked very promising; but when it headed out, there were acres of clean chess, without one head of wheat. In those places where the snow had drifted on, the wheat was very stout and free from chess; and in some places the wheat and chess grew together.

Now the cause of such an abundant crop of chess (for it was very stout) was this:

In the month of January, there fell on the frozen ground, some three or four inches of snow. The wind blew some into the hollows and along side-hills and fences. In a day or two it commenced raining, and filled the tops of the wheat with rain and snow; and then froze up, and remained so until the latter part of March. Now the result was, where the snow drifted deep, the wheat was good; but where the rain and snow froze on to the tops of the wheat and formed a coat of ice, the wheat smothered; and where the roots were not entirely dead, in the place of wheat there grew chess, for the reason that there was not sufficient strength left to mature wheat.

M. H. MANSFIELD.

Niles, Mich. Nov. 1864.

More About Marashes.

MR. EDITOR:—Interrogations, both verbal and written, are constantly being made to me, in reference to my marsh experiment as published in the *Farmer* for February, asking what was the condition of the land when the crop was off. I answer, it was so far rotted that one good horse cross plowed it just before it froze, and did it pretty well, with a cast iron plow not over sharp. The share had an upright cutter, and no coulter was used. It was the same kind of plow, as to fixtures, that I used in breaking up the marsh, only a smaller size. My breaking plow was a common two horse, or number three, Jackson plow, well worn, and a new share with upright cutter partially ground to edge by the grind stone. In cross-plowing, the horse had to walk on the land instead of the furrow, on account of soft places which would worry him too much.

I expect that the frost acting on the marsh this winter and spring, will leave it in fine order for another crop. I think no one need hesitate, or fail of success in cultivating marshes after having them reasonably drained. Mine was once a most miserable piece, a mere quagmire, as hundreds who have seen it well know. I believe marshes, generally, need ditching all round, to cut off the springs; give them time to drain and settle, and there is no danger but they will produce all kinds of crops. Plow in ridges in the fall—nothing doubting.

Respectfully,

T. T. WILSON.

MICHIGAN FARMER.

ROBERT F. JOHNSTONE, EDITOR.

DETROIT, MARCH, 1855.

The Legislature.

The Legislature of our State has adjourned, and among the acts passed by it, are several which relate to the interests of agriculture, and which we shall publish as soon as we can make room for them. One, however, is so important that we give it a prominent place in this number. It is the act to establish the State Agricultural School. This act provides that a site for a college shall be purchased within ten miles of the Capitol of the State, of not less than 500 acres, nor exceeding 1000; and that the money arising from the sale of twenty-two sections of Salt Spring lands shall be appropriated for the purchase, and also to erect the necessary buildings, and to establish the requisite professorships. In this institution, tuition is to be free to all who are residents of Michigan. But we refer to the bill itself, for its provisions. At one time, for want of agreement as to where the location should be, the bill was given up as lost, but the good sense and the general desire of the members of the Legislature to perform a duty long delayed, led them to lay aside all local feelings, and to do what was thought best for the general good. In this they have acted wisely. And now that the first great step is taken to promote the cause of agricultural education in Michigan, let us all keep the ball rolling, until such an institution is established as will be worthy of the liberality of the State, and not only an honor, but a source of real practical benefit to the people.

In laying the foundation of this institution, its friends and those who may be entrusted with the duty, must be careful not to attempt too much. Time must be given to consolidate each layer of the fabric, and public impatience, while admitted as a spur to exertion, must not be allowed to interfere with the healthy growth and steady advance of all its parts, in such a manner that each will strengthen the whole and each other, and neither will weaken nor waste its own energy, nor impair the usefulness of the whole.

We feel a just degree of pride in the position of our state with regard to this institution. She is the first state in the Union to make an attempt on a large scale to establish a school where her sons may become versed in all that relates to that great interest, from which she draws nearly her whole wealth; and which, in fact, has given her all her importance as a State. What would her commerce be without her flour, her wheat, her wool, her sheep, her cattle and other productions? What is the wealth of her mines or her fisheries when compared to that which the farmers each year send forth as the result of their labor? And if she is the first State in the Union to take this

step, need we point out to what extent attention from every quarter, will be turned upon us to note, to criticize, and to question every step which may be taken, and every movement which may be made to build up this institution to meet the wants of the community, and to justify the expectations of its friends, and the public.

We hardly believe it is necessary to remark how incumbent it will be on those to be entrusted with the management of this institution, to secure from the very start, the ablest and most accomplished administrative talent which is to be had; no matter what the cost. The establishment will start into life with the good will of the whole community enlisted in its favor, and that community will not be satisfied with any arrangement that is not of the first class, and of the highest attainable order.

"Hard Times."

"Such hard times"—"There is no money to be had"—"Did you ever know money to be so tight?" These are some of the exclamations which greet us this year, and we must say that we have seldom felt the effects of "tightness" in money affairs so badly as we have this season. Our subscribers have rarely been so far behind; and yet there must be a fair amount of money in the hands of farmers. Their grain has sold well enough to pay them for what they may have suffered by a depreciation on the rates which wool fell 50 last season, when wheat has brought \$1.75 per bushel, oats 40 cents, corn 60 cents, hay \$16 to 18 per ton; beef \$7.00 per hundred pounds, butter 25 cents, cheese 11 to 12 cents per lb., there ought not to be a great deal of complaint of hard times. We know that when the prices of these articles were just about half the amount above quoted we received double the amount of encouragement, we have done this season with the prices high as they are. If high prices and hard times "go together and roost with the farmer, what must be the case in the cities? There is no use however, in letting the mere words "hard times," and their consequences, take the pith out of any of us; if we would be ready to take advantage of the "good time that is coming" along one of these days, we must not stand with our hands in our pockets, and be satisfied with uttering the croak of the raven, "hard times," but let us keep both hands, and head well employed in contriving how to conquer the times, and we will be sure to come off victorious, and get the times, hard as they are, so well tempered to suit us that we shan't mind their stoney hearted nature in the slightest degree.

An old and valued correspondent and agent writing from a flourishing town in one of the wealthiest counties in the State says: "The cry of 'hard times,' is heard here as frequent and as earnest as elsewhere. Several of your patrons in their efforts at retrenchment, have numbered the *Farmer* among the victims

to fall beneath their pendant blades. Well, let them go, they are too stupid to appreciate the beauty and utility of a home agricultural journal, worth having in their homes; and you want no such fickle foundation as a base for your superstructure. May the breed be crossed with pure blood, or soon become extinct."

We hope to renew the acquaintance of some of these "sufferers," under improved circumstances in the future.

THE NEW YORK AGRICULTURAL SOCIETY.—We perceive that previous to the late annual meeting of the New York State Agricultural Society, some of the New York papers expressed fears that the excellent Secretary of that Society, B. P. Johnson, Esq., would not be elected. We are rejoiced to see that the Society has handsomely sustained itself against whatever ill judged efforts may have been made to defeat Mr. Johnson. That Society could ill spare him. We were somewhat cognizant of its operations, previous to the enlistment of the present Secretary in its service; and certainly, if ever talent of a particular kind were usefully employed in bringing order out of disorder, and in developing to its utmost capacity the usefulness of the Society, those of Mr. Johnson were. Much of the well deserved reputation of this celebrated State Society since 1844 is owing to the entire devotion of Mr. Johnson to its interest, and the Society would be committing an act most suicidal in depriving itself of the experience of a gentleman so ably calculated to promote its usefulness, and to add to its reputation.

TRANSACTIONS of the Michigan State Agricultural Society for the year 1853. Published by order of the Legislature. Compiled by J. C. Holmes, Esq., Secretary of the Society. Lansing: Printed by G. W. Peck, printed to the state.

The publication of this volume has been much delayed beyond the usual time of its appearance, by the addition to its pages of the abstract of the state census which has been added to it. These census tables contain a great deal of valuable statistical information. For instance, we learn from them the population of each town and county of the state, with the amount of improved land, the number of acres sown with wheat, corn, and other grain, and the amount of the agricultural produce. As an example, it appears from these returns, that in 1853 there were 473,571 acres sown with wheat, from which were harvested, 7,027,932 bushels of grain, or only at the average rate of 14.83 bushels per acre, and yet this was one of the best and heaviest wheat crops per acre that has ever been known in this state. Last year it appears that there were 551,677 acres sown with wheat; but although the produce was not returnable, we do not hesitate to say that there was at least a million and a half less bushels of grain produced than there was the previous year. We point to these as some of the most striking statistics, in these returns.

The report itself contains much matter of general interest to the agriculturist. There are several statements of crop and the manner of their growth, by such farmers as Lewis Cass, I. M. Bartlett, John Starkweather, with essays on the potato, on sheep husbandry, oxtranny &c. Among the papers which will be read with a good deal of interest and the geological reports of Bela Hubbard, made in 1840 but which were almost out of print, and difficult to be obtained. The compilation will be found a useful volume of references, and very creditable to the Society.

Meteorological.

REVIEW OF THE WEATHER FOR DECEMBER, 1854.

BY L. WOODRUFF, ANN ARBOR, MICH.

The thermometer at.....	7 A. M.	2 P. M.	9 P. M.
Highest temp. in month, 48° (6th)	60° (6th)	60° (6th)	60° (6th)
Lowest " " " " " "	—1 (23d)	10 (2d)	—1 (23d)
Average.....	22	30	25.4
Monthly mean.....	25.3		

MONTHLY VARIATIONS.

Greatest daily mean.....	56° (6th.)
Least.....	46° (23d.)
Greatest daily range.....	24° (2d.)
Least " " " " " "	2° (21st.)
Clear days.....	3
Part clear.....	3
Cloudy days.....	25
Days on which rain fell.....	4
Total amount of rain and melted snow.....	2.59 in.

WINDS.

W., 3 days; N., 1 day; E., 2 days; S., 2 days; S. W., 12 days; N. W., 3 days; N. E., 2 days; S. E., 6 days.

REMARKS.

The weather of this month has been marked by some great and sudden changes, but without exhibiting any very low temperatures, the minimum being one below zero. The maximum (60 degs.) is above that observed here during any January for some years.

The temperatures observed at 2 P. M. on the 5th 6th and 7th were 30°, 60°, and 22° respectively; this shows the extent and suddenness of the changes. A well-defined period of weather, embracing exactly four weeks, and which was generally very mild for the season, the average temperature at 2 P. M. being 37°, closed on the 20th, and the remainder of the month was cold and very stormy. Over two feet of snow fell during the month, and all excepting about three inches, between the 20th and 31st. Snow fell on 17 days. High winds prevailed on the 6th, 13th, 21st and 32d.

✍ "A subscriber writing us from Cincinnati, says:

I consider it one of the first papers of its class, and trust that the people of Michigan will, by a universal subscription and active correspondence, based upon thorough experiment, establish the Peninsular State at the same rank of agriculture. Such labor is never in vain."

CHICKENS.—Now that Spring is approaching, we would call the attention of breeders of Fancy poultry to Dr. Freeman's advertisement, and Mr. Fulmer's, of New Jersey, and also to the account of Mr. Mooris, of New Jersey, in the present number.

Proceedings

Of the Livingston County Agricultural Club on the occasion of the death of Hon. WILLIAM A. BUCKLAND.

At a meeting of the Livingston County Agricultural Club, held at the house of Daniel Case on the 30th December, 1854, (being the closing transaction of the past year,) on reviewing the occurrences of the year, the members of said Club being mournfully impressed by the sudden death of Hon. Wm. A. Buckland, a committee was appointed to prepare a suitable expression of respect for his memory to be presented for the action of the Club at their meeting, January 27th, 1855.

At a meeting of the Club held at the house of Odel J. Smith, the committee in relation to the death of the Hon. Wm. A. Buckland, respectfully reported, that: Whereas Judge Buckland was the originator of this Club, constantly attended its meetings, and cherished it as a nucleus around which an agricultural interest should rally, and not limiting his exertions to the Club, his energy was untiring in aiding and encouraging improvements in agriculture, wherever his influence might be felt; and whereas he was the first among the members of the Club to be removed by death, snatched away while in the strength of manhood and in the midst of his usefulness, we cannot but regard his untimely death as a calamity not only to this Institution, but to the community at large.

But while we deplore our loss in his death, it is consoling to believe his influence yet lives, and that many will emulate his virtue and improve by his example.

The report having been adopted, it was,

Resolved, That said report be entered on the Record of the Club, and signed by the Chairman and Secretary; and that it be published in the *Michigan Farmer*, and in the *Livingston Courier*; also that a copy of the same be presented to the family of the deceased. **ELY BARNARD, Chairman.**

HIRAM WING, Secretary.

Mr. Isham's Next Volume.

We have hardly known what to say to the numerous inquiries after Mr. Isham's next volume of travels. We are happy to learn, however, that he is engaged upon a work on Egypt, the preparation of which has been interrupted by weak eyes, with which he is still more or less afflicted. As soon, therefore, as this difficulty will allow him to prosecute his design, the work may be expected to appear; but *how* soon, it is impossible to say. Mr. Isham spent the entire winter in Egypt, and of course is well posted as to the remains of ancient art, and present condition of that wonderful country. This book will be looked for with much interest. This is the volume which he proposed to publish as his next volume, and not his "Observations in Europe," as we understood and reported in a former number.

Michigan Stock Register.

Short Horns.

2. Osceola--Bull owned by J. W. Dickinson, Hillsdale county.

Bred by Simpson of Caledonia, Livingston Co., N. Y., calved October 2d, 1853. Sired by Yonondio; Yonondio by old Splendor; Splendor--bred by Thomas Weddle of East Bloomfield, Ontario Co., N. Y.--got by imported Rover; Dam, imported Beauty; both imported by T. Weddle in 1834.

Rover was got by Rockingham; Dam, Cherry, by Wonderful; Grand dam by Alfred.

Dam of Yonondio was Lady Morris--bred by T. H. Newbold, of Caledonia, N. Y.,--got in England by Priam; out of Dione; by Monarch; by a son of Comet; by Cupid; by Favorite.

Dam of Osceola is Genesee Beauty--bred by Hon. Samuel Fitzhugh, of Mount Morris--grand dam Betsy, imported by T. Weddle.

Genesee Beauty was sired by Remsen; Remsen was bred by Lewis F. Allen, of Black Rock, near Buffalo, New York.

For a more particular description of Remsen and other ancestors, see the American and English Herd Book.

[In the January number, a brief pedigree of this animal was published, as furnished by the *Wool Grower*, but as it was neither full nor perfect, the above is given, as the more correct and perfect record.]

Devons.

4. Young Duke of Devon--Bull, dark red, owned by Wm. R. Schuyler, Marshall, was calved in August 1852. Sired by Duke of Devon, Dam Duchess. Duke was imported in 1851, Duchess in 1850 from the herd of Sir Davy England, by R. C. Clapper, Forester, C. W. The first premiums of the N. Y. and Michigan State Agricultural Societies, were awarded to Duchess in 1851, and the first premium of the Michigan State Society to Duke in 1852.

Certified by **WM. R. SCHUYLER.**

OUR STOCK REGISTER.--We copy the following notice of our Stock Register as one expressing the general sentiment of approval with which other friends greet its appearance. The writer is L. H. Jones, of Napoleon, Jackson county. He says:

"For one I shall be very much in favor of such a record as it not only gives each stock breeder a well arranged and printed pedigree of his own stock, but it also gives him an opportunity of knowing what the stock of other breeders are; and saves him much writing to make inquiry as to the stock he wishes to cross with. These published pedigrees will also serve as a check upon the attempts to pass off three quarter, and seven-eighths grade stock as full blood, at our State and county fairs. I hope you will meet with due encouragement from all our Michigan stock breeders."

AD We have received from C. P. Benton, Coldwater, a drawing of an ingenious and cheap ventilator, intended to be used in connection with a common stove pipe. The engraving will appear in our next number if possible.

AD The Suggestions of E. G. C., of Spring Arbor, are thankfully received, and he will find that they will be attended to.

PATENT OFFICE SEED.—Mr. George Talbot of Centreville, St. Joseph co., a few weeks ago, sent in a sample of seed wheat which had been sent to him from Washington, as a new and valuable variety. As Mr. Talbot, after inspection, could not see anything very promising in the grain, he sent some to us for examination, and we certainly do not find the appearance of the seed such that it should supersede even the most worthless varieties we now cultivate. Mr. Talbot did not send us the name, but still it might be well enough to try it for a season or two, to find out what effect our soil and climate would have upon it. The sample sent us, had two or three "wee faults" as a Scotchman would say, which no experienced wheat grower could overlook. The grain was that of a red wheat, the kernels were small, covered with a very thick outside skin, and many of the grains were shrivelled and not filled out. The proportion of well filled plump grains to the shrivelled ones, was small. We are sure it would not prove any acquisition in this State, still as a matter of curiosity it might be well to give it a trial.

INFORMATION WANTED.—Some of our agricultural implement makers are very negligent about advertising what they manufacture. We have several letters before us now asking where machines can be had to do certain kinds of work. Among them is one asking where a good first rate fanning mill can be had, which will make wheat clean enough to sow for seed. Now we could probably answer that question perfectly well to our own satisfaction, were we about to buy, but in advising a subscriber upon the subject, we have to write letters, and pay postage, to aid in selling another man's machine, and to help him to transact his own business, of which the seller gets all the benefit. We suggest whether it would not be well enough for the makers or sellers of these machines, to make known their merits in some public manner. There were some good mills shown here at the last State fair, by the Messrs. Penfield, of this city, which if rightly managed would clear seed from all foul stuff well.

A correspondent asks, how much of either lime or ashes would be equal to one bushel of plaster upon a sandy soil? Neither ashes nor lime will supply the place of plaster. Ashes will supply potash to the soil, and have a good effect. Lime also will have a good effect as another kind of manure. But plaster contains a certain amount of sulphuric acid in its composition which has a powerful effect on the growth of such plants as clover and peas, and when sown on sandy soil, it has been found to aid their growth materially. Neither lime nor ashes contain this constituent, and therefore, no quantity of either can supply the place of plaster.

THE MATHEWS REMEDY FOR THE CURCULIO.—We have received one or two letters of inquiry relative to the remedy for the Curculio, said to be discovered by a Mr. Mathews of New York. The remedy was referred a year ago to a committee appointed by the executive committee of the New York State Agricultural Society: which committee have required another year to experiment and test it thoroughly before reporting. The remedy is not yet in market, nor are we as yet aware whether it will be made public property or sold as a patent right by the discoverer. As soon as we obtain more information on this subject it will be made known, meanwhile, we would advise a trial of a thick coating of wood ashes around each plum tree; several who have tried this application report in favor of it.

Information about Saw Mills Wanted.

A correspondent at Waterford, in this State writes, "will some of your ten or twelve thousand subscribers inform me through your excellent monthly, of the best and cheapest mode of building a saw mill upon a stream of six and a half feet head; also the best wheel in use, what is the best saw for hard wood; and also some mode by which in dull times, the power of the mill may be turned to other uses."—A. W. L.

S. N. Grimes, asks if oats will do well as a first crop on a piece of land which has been cleared, the past season, the soil being a yellow sand? We have seen oats do very well on a piece of land just cleared, which, owing to circumstance, could not be sown in the fall, with either wheat or rye. Mr. Grimes asks also how much clover seed should be sown upon an acre in the spring. Some farmers are so "penny wise" as to sow but six pounds. Others looking more to securing a crop than to saving seed, sow from eight to ten and twelve pounds; the latter where no grass was sown with the clover. We prefer from ten to twelve pounds sown if possible before the snow 1 off the ground in the spring.

ORCHARD GRASS.—W. B. of Wisconsin, is informed that a half a bushel of orchard grass seed, is an ample allowance for an acre, sown with the usual allowance of clover. The seed cost \$3 per bushel here in Detroit. As to the number of tons of hay it will produce to the acre, that depends on the treatment of the soil. But few persons have grown it much alone, as it is complained of as making the land tussocky.

T. T. Wilson, of Jackson, writes he has received some of friend Woodmansee's wild goose peas, to which he means to give a trial next season.

Geo. J. Colby, of Coldwater, has invented a machine for peeling basket willows. As this is an operation which is a troublesome one, the invention, if a practicable one, will materially conduce to the cultivation of the osier; about which we shall say something in our next number.

Feathered Legs are a beauty in Shanghaes.

EDITORS OF FARMER:—I say that feathers are a beauty on the legs of Shanghae fowls, because that very peculiarity is one of the grand characteristics of the breed. The best fowls, by far, that I ever saw of the Shanghae blood, were those with the most feathers on their legs. I should as soon think of breeding Leicestershire sheep with large horns, or white Devon cattle, as Shanghaes with clean legs. In fact, each different breed has points and marks by which we distinguish them, and in breeding we ought to select those birds which have these points or marks most fully developed.

I would ask Mr. L.—if he can breed Dorkings without the extra toe, or Games that will not quarrel and fight. If he can breed clean legged Shanghaes that are pure blood, I have no doubt that he can breed the others as I have mentioned.

Yours with respect,

E. H. CRESSY.

Troy, December, 1854.

AGRICULTURAL ANALYSIS.—We have had, recently, quite a number of applications to know if analyses of soils could be made in this State. After some inquiry we learned that Professor Douglass was amply prepared to make such analysis. Not being acquainted with the Professor, Mr. J. C. Holmes wrote to him in our behalf, and we have received the following reply, which we commend to the attention of farmers who are opposed to *humbug* investigations.

UNIVERSITY OF MICHIGAN,
Feb 6, 1865.

R. F. JOHNSTONE, Esq., DEAR SIR:—I yesterday received a letter from Mr. Holmes, asking if I was prepared to make analyses of soils, &c.

More than two years since, at my own expense, I imported from Germany some very super and expensive apparatus for this object, and am fully prepared to do work of this kind in the very best manner. I say in the best manner, for I will not be guilty of making a cheap and imperfect one for a moment's consideration. You must be aware that such analyses do much more harm to the cause of agriculture than good.

I had hoped that there would be sufficient of this work, to at least repay me the expense actually incurred, but have found it otherwise, unless I am willing to humbug community by imperfect analyses.

I should be very glad if you can do anything to encourage our community to have this work done in Michigan, as the facilities are equal to those of any eastern city.

We are about to organize a department in Analytical Chemistry in the University.

Yours truly,
SILAS H. DOUGLASS.

We are indebted to B. P. Johnson, Esq., Corresponding Secretary of the New York State Agricultural Society, for a copy of the Transactions of said Society, for 1853, including an abstract of the proceedings of the several County Societies throughout the State. This volume, being the thirteenth issued by the Society, contains many valuable papers, and much matter of great interest to agriculturists generally; among which we notice a lengthy and elaborate lecture on Flax, by Prof John Wilson, of the Royal Society of Edinburgh. The reports and statistics of the County Societies give decisive evidence of the rapid progress of agriculture in the Empire State.

WISCONSIN FRUIT GROWERS ASSOCIATION.—This Society, whose collection of fruit attracted so much attention in Milwaukee in October, met at Janesville on the 25th, and some very superior fruit was exhibited. Interesting discussions as to the quality and adaptation of the different varieties were had, and the following list of officers for 1854 was chosen:

President.—H. J. Starin, of Walworth.

Vice President.—C. Hawley, of Milwaukee; D. Worthington, of Waukesha; F. Drake, of Racine.

Recording Secretary.—Mark Miller, of Rock.

Corresponding Secretary.—Charles Gifford, of Milwaukee.

Executive Committee.—J. C. Brayton, of Jefford; A. L. Castleman, M. D. and A. G. Hanford, of Waukesha.

We acknowledge the receipt from the Publisher, Samuel Jones, Boston, of a work entitled, "The Great Red Dragon, or the Master-Key to Popery; by Anthony Gavin, formerly a Roman Catholic Priest, of Saragassa, Spain." It is a history of the Romish Church, comprising a full account of the rites and ceremonies, and disclosing the corruptions and iniquities of the Catholic and Jesuistical priesthood. Price \$1.25.

Mr. Foster's communication was received too late for this month, as was Messrs Paige, Maddox & Co.'s, of Toledo. James Dawson's letter will have an insertion next month. There are several others which have been crowded out.

ACKNOWLEDGMENT.—We have received from Mr. J. N. Hicks, of Lodi, a pair of very handsome buff Shanghai pullets, which we consider quite an ornament to our yard, and for which he will accept our thanks.

Mr. A. McDougal has kindly consented to act as agent for the *Farmer* at Somerset, Hilldale county, and any payments or subscriptions which may be made to him will be the same as paid to ourselves.

Plaster, when used in the spring, should be sown on the crops just as soon as there is the least sign of growth. The earlier the better.

The contents of this number will be found on page 93, having been crowded out by the printer.

Markets and their Prospects.

During the month there has been but little variation in the quotations of the markets. At the east prices of breadstuffs are not so firm at the extreme high rates as they were. This is partly owing to the fact that the most severe portion of the winter season has passed away, and although winter commenced with a very small stock of flour and wheat on hand, yet supplies have been sent forward in sufficient quantity to meet all demands, but without lessening prices. Previous to writing this notice of the market, the steamer Baltic arrived at New York. Her advices report that supplies of breadstuffs had begun to arrive in considerable quantity from the north of Europe, and also that larger quantities of wheat and flour were offered by the home farmers than had been expected, which had caused a slight decline in prices, but this decline has not affected the New York market, because the home demand is almost equal to the supply. There are some of our correspondents who seem to think that when navigation opens, there must be an immense rush of the produce eastward, which has been accumulating at all the lake ports during the winter. They seem to predicate this result from the very slight demand that exists at the Atlantic ports for export to foreign ports. But it must be recollected that should prices decline the foreign demand will be resumed, and therefore, while fluctuations in the market may be calculated on, and lower rates expected occasionally, as a general average, rates will be a very little lower, especially for Michigan productions. Good quality white wheat is not plenty and must command a good price. There will be little of it exported, for it is all wanted at home. At the present time, white wheat is selling at \$1.70 to \$1.75 in the Detroit market. In New York the price is about \$2.40 per bushel for good samples. The cost of transportation from this point across the Suspension Bridge at the Falls is 22 cents per 100 pounds. To New York it costs 30 cents more and to get it across the river from Detroit to Windsor it has cost at the rate of 5 cents per bag. There is nothing doing in this business, however, at present.

Flour has been selling at retail at about \$7.75 to \$8.25, according to quality. There is much of the flour now offering, made of mixed western wheat, and it does not sell for the same prices that pure white Michigan wheat will bring. All flour from the northern part of the state is received with favor.

STUMP MACHINE.—We have on hand an inquiry about machines. We know that there have been several tried in this State within the past two years. Will any of our readers who have seen their operations, give us an account of them, how they are worked, whether they answer the purpose, and what are their merits as well as, their defects? Those who possess a good one might probably hear of a purchaser, if they wished to sell.

JACKS.—We call attention to the card of **SETH A. BUSHNELL**, of Hartford, Ohio, who besides breeding short horns and south downs has a fine stock of Maltese Jacks, which he can sell to those who are desirous of raising mules. Mr. Bushnell has paid as much or more attention to this department of breeding than any man we know.

ANN ARBOR ADVERTISEMENTS.

CHARLES THORNTON,
MANUFACTURER and dealer in Hats, Caps, Fur, Gentlemen's Furnishing Goods, Stocks, Cravats, Ties, Collars, Handkerchiefs, Gloves, Socks, Suspenders, Canes, and Umbrellas, and all articles usually kept at hat stores. Cash paid for Furs. No. 27, Phoenix Block, Main St., Ann Arbor, Mich. jely

WM. WAGNER,
MANUFACTURER and dealer in Ready Made Clothing. His assortment will always be found complete. Also, an assortment of Cloths, Cassimeres, Vestings, and Gentlemen's Furnishing Goods. Custom Work and Cutting done to order. No. 11, Phoenix Block, Main street, Ann Arbor, Mich. jely

T. A. HAVILAND.
MANUFACTURER and dealer in Wheat Drills, Thrashing Machines, Clover Machines, and Straw Cutters. Also, Child's Wheat Cleaner, for millers. Blacksmithing carried on in all its branches. All articles warranted to give entire satisfaction. Ann Arbor, Lower Town, Michigan. jelf

Ann Arbor Paper Mill.

LUND & CHAPIN, Manufacturers of Book, Printing and Wrapping paper. Paper of any size and weight made to order on short notice. All orders will receive prompt attention.
J. H. LUND. C. A. CHAPIN.
Ann Arbor, Feb. 9, 1854. 1v

C. B. HUTCHINSON'S
STAVE MACHINE
THIS Machine was awarded the highest reward—a Silver Medal at the Crystal Palace.
The subscriber is the authorized agent of the Patentee, and offers for sale individual, town and county rights in the unsold territory of the State of Michigan. All letters post-paid will receive prompt attention.
A machine may be seen in operation at Rawsonville, $\frac{4}{5}$ miles southeast of Ypsilanti.
F. E. JONES.
Ann Arbor, July 4, 1854. jy-1f

CALVIN BLISS.

DEALER in Clocks, Watches, Jewelry, Silver and Plated Ware, Musical Instruments, Cutlery and Fancy Goods. His assortment will always be found complete, and sold for cash as cheap as at any establishment west of New York. Clocks, Watches and Jewelry of every description, neatly repaired and warranted. Sign of Big Watch, 27 Phoenix Block, Main St., Ann Arbor, Mich. jely



DR. C. R. PORTER & BROTHER.

DENTISTS.

WE are permanently located in the city of Ann Arbor, and may be found at all times, ready to perform any operation in dentistry, with neatness and dispatch. Teeth cleaned, and filled with pure gold so as to arrest disease, and preserve their usefulness.

ARTIFICIAL TEETH

Inserted upon pure gold and platinum, unequalled for beauty, usefulness, and durability.
Ann Arbor, Main street Mich. jely

SETH A. BUSHNELL,

BREEDER OF

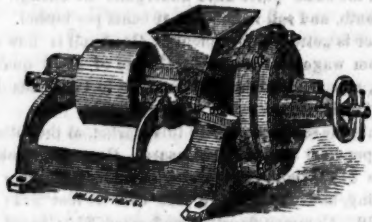
DURHAM CATTLE,

MALTESE JACKS AND JENNETS,

SOUTHDOWN SHEEP,

(ma) HARTFORD, Trumbull Co., Ohio.

TO FARMERS, MILLERS & LUMBERMEN.



CHARLES ROSS' PATENT CONICAL

BURR-STONE MILLS,

ARE the most perfect Grinding Mills ever offered to the public. Either for Farmers' use by Horse Power, for flouring and re-grinding middlings and other offals in large flouring mills, they excel all other kinds of mills, giving a larger yield and a better flour, having no oscillating motion, and easily kept in good face; and are the only mill well adapted to the unsteady motion of saw-mills, for meal, Graham flour, or feed grinding. The factory prices are \$75, \$100, \$140, \$170, \$200, and \$300, and freight to the place of delivery. For sale by **WALTER CHESTER**, Local Agent on the dock, and **JOSEPH SEDGBEER**, General Agent, Detroit, Michigan.
[March, 1, 1855.]

YOUNG DUKE OF DEVON.

THE first prize 2 year old Devon Bull at the 1st State Fair, will be kept on the Farm of the subscriber, near Marshall, Mich., for the benefit of breeders desirous of improving the stock by a cross with pure Devon blood.

TERMS—\$3 in advance for the season.

See Pedigree in Michigan Stock Register. 1st pr sent month.

[March—11]

WM. R. SCHUYLER.

1854. FARMER'S WAREHOUSE. 1854.

D. B. & G. C. BURNHAM,

Dealers in all kinds of Agricultural Implements, Garden and Field Seeds, Salt, Plaster and Water Lime.

Warehouse near Railroad Depot, BATTLE CREEK, MICH. [Oct-54.]

HOLMES & COMPANY,

IMPORTERS, JOBBERS AND RETAILERS IN

STAPLE AND FANCY DRY GOODS

And Manufacturers and Dealers in

Clothing, Millinery, Visites, and Mantillas,

No. 100 and 102 Woodward Avenue.

DETROIT MICHIGAN.
March, 1854. ly

BRAINARD & BURRIDGE,

ENGRAVERS, LITHOGRAPHERS

AND
DESIGNERS,
Herald Block, Cleveland, Ohio.

PATENT OFFICE AGENCY.

Number 4, Herald Buildings, Cleveland, Ohio.

Feb-1f

CHICKENS FOR SALE.

THE subscriber has for sale a large number of first class chickens, superior even to any he has ever bred heretofore, though always having taken premiums wherever exhibited in different states.—The present stock are bred from recent choice selections of the first importations of the following varieties, viz: Brahma Pootras from a late importation of mottled plumage, which attracted great admiration at the late poultry exhibition in New York city. They are of great size, perfect form, and beautiful plumage. Shanghai or Forbes, Periz, and Carrington importations. Black Cochins China of a green metallic lustre—great layers; red Cochins China—very fine; gray Chittagonas—very large; Hong Kongs from the premium coop at Boston last year; gray Dorkings imported by subscriber last year from Dorking, England; Sumatra Pheasant games from Doct. Bennett's stock, and Sebright Bantams, all of which are bred with the utmost care as to purity.

Persons forwarding orders with the money may rely on being promptly attended to; carefully cooped and delivered at M. C. R. R. without additional charge; also, fresh eggs carefully packed and delivered at depot for \$3 per doz. Price of Brahma Pootras, \$8 per pair; all other varieties of Asiatics, \$6; well grown Dorkings, \$4.

Schoolcraft, Mich., May, 1854.

M. FRIEMAN.
[Aug-54]

ARE YOU SICK?



THEN you can't be cured too soon. Don't delay until your complaint is incurable, and then mourn when it is too late. Four-fifths of all the diseases which people the church yards, might be cured by AYER'S CATHARTIC PILLS, if taken in season. Don't get dragging through the Spring, faint, sleepy and listless, because your blood is loaded with bile. Don't wear the headache, heartburn, and their kindred disorders, because your stomach is foul. Don't paralyze yourself around the world, covered with Piles, Blisters, Ulcers, Sores, and all or any of the unclean diseases of the skin, because your system wants cleansing. Don't show yourself about lean, haggard, all caved in, because your Stomach and Bowels need strengthening into healthy action. *Ayer's Pills* set these things right, as surely as water quenches fire. They purify the body and blood, and restore their functions into healthy activity, which you can feel as quick as they are taken. They are the one great medical wonder of this age, recognized by all who know their virtues, and many thousands know them. Take the *Cherry Pectoral* for a Cough, and the *Pills* for all derangements requiring a Purgative medicine.

Prepared by Doct. J. C. AYER, *Practical and Analytical Chemist*, Lowell, Mass., and sold by all Druggists and dealers in Medicines everywhere. [mar-3]

Scions of Choice Fruits for Grafting,

SUPPLIED in large or small quantities, embracing selections from over 200 varieties of Apples, Peas, Plums, and Cherries. With the exception of Peas, (of which, out of some 40 varieties, only a few have as yet fruited,) the Scions will generally be taken from bearing trees. Apples—25¢ per dozen of each variety, or \$1 per hundred. Peas, Plums, Apricots, and Cherries, 37½¢ per dozen of each variety, or \$2.50 per hundred. Cuttings of Grapes, Houghton's Seedling Gooseberry, Red and White Dutch, Champaigne and Black English Currants 25¢ per dozen of each sort, or \$1 per hundred. Small samples embracing 50 sorts, at \$3 to \$10. Where a number of Scions of the more profitable sorts are wanted, they will be supplied at reduced prices. Small parcels may be sent by mail.

FRANCONIA RASPBERRY CANES—Very productive, profitable for market. Price \$1 per dozen, \$6 per hundred, \$50 per thousand. HOUGHTON'S SEEDLING GOOSEBERRY, (true)—Hardy, productive and good; always free from mildew.—25¢ each, \$2.50 per dozen—strong plants—\$.50 per doz. yearling plants.

APPLE SEEDLINGS—One year old, \$3 per thousand. STRAWBERRIES—Burr's New Pine, Crimson Cone, Cincinnati Hudson, Frolle Hautbois, Black Prince and White Wood. Price 25¢ per doz., \$1 per hundred.

SEED POTATOES—Aly and late sorts, including fifteen choice varieties, as Hull's Jubel, Early Zanley, Ash Kidney, Currier, Black Pink Eye, Black Imperial, White Marston, Yarn, Jackson, Wil Rough Perle, C. H., &c. Price from \$1 to \$3 per bu., R. P. Chili \$2 per peck. (See Farmer for Oct., 1854.)

Each parcel will be carefully packed, marked and delivered at the Express Office, Railroad depot, or otherwise, as directed;—after which they will be at the risk and expense of the purchaser.

Orders should be sent as early as possible, and accompanied with a remittance. Also promptly returned by mail, when unable to fill orders.

[mar]

A. G. HANFORD, Waukesha, Waukesha Co., Wis.

W. S. LUNT,

BREEDER OF

SUFFOLK & BOSTON PIGS

Fancy Fowls, Lop-Eared Rabbits, &c., FINDLAY, HANCOCK CO., OHIO.

"We take pleasure in saying to those unacquainted with Mr. Lunt, that he is a most excellent and honorable gentleman, and purchasers can rely upon any statement which he may make in reference to his stock." [Ed. Ohio Farmer, August, 1854.]

This certifies that we are personally acquainted with Mr. LUNT, and cheerfully recommend him to the confidence of those who desire to purchase improved stock.

Hon. H. C. CONY, Hon. P. CARLIN, J. M. COFFINBERRY, Esq., CHARLES W. O'NEAL, Esq., Dr. W. H. BALDWIN, E. P. JONES.

[mar-2]

REALLY WORTH REMEMBERING!

THAT THE

MICHIGAN BOOT & SHOE STORE!

STILL continues to hold forth GREAT INDUCEMENTS for all those wishing to supply themselves or families with a first rate article of

BOOTS, SHOES AND GAITERS.

We have recently added an immense Stock of New and Desirable Goods to our former stock, which, with goods from our OWN MANUFACTORY, will enable us to offer our patrons an UNEQUALLED assortment of Boots and Shoes of

ANY KIND OR QUALITY

select from, and we are determined that they SHALL BE SOLD CHEAPLY. SWIFT & SEYMOUR, 200 Jackson Ave., near Bates-st., DETROIT. June-17

MORE CHOICE SEEDS FOR FARMERS & GARDENERS.

BY MAIL, RAILROAD OR EXPRESS.

Mexican Wild Potatoes, at \$1 per peck—warranted genuine. Early June 50 cents per peck—these are very early. Scotch Muscovy Potatoes 50 cts. per peck—a premium potato. Mercer, three varieties, 60 cts. per peck—two years from the ball. Poland Oats—highly recommended; 50 cts. per peck of 10 pounds. Flour Corn, the only true substitute for wheat, 25 cts. per quart.

All the above will be delivered at the Railroad, without extra charge, nicely put up in stout Muslin Sacks and directed according to order.

A paper of any of the following named seeds will be sent by mail, free of postage, to all post-paid applicants, who inclose 9 cents with their address.

FLOUR CORN, AUSTRALIAN WHEAT, POLAND OATS, EGYPTIAN CORN, SWEET PUMPKINS, APPLE SQUARE, EARLY LIMA BEAN, JAPAN PEA, NATIVE COFFEE, CHOCARD PEA, THOUSAND-TO-ONE BEAN, CALAVANT PEA, BUENA VISTA BEAN, LONG ISLAND WATERMELON, MEXICAN DO., MOUNTAIN SPROUT DO., MOUNTAIN SWEET DO., VARI-EGATED SWEET WILLIAM, DOUBLED SUN-FLOWER, (the Floral king.) A package of all the above for fifty cents.

Send in your orders early, that they may be filed and attended to in turn. Your money will be returned when unable to fill order. The Potatoes will be sent in April, and the other seeds immediately.

Send current money, or postage stamps, and address, D. D. TOOKER, Napoleon, Jackson Co., Mich.

[mar-3]

CRANBERRY VINES.

THE kind most known and best adapted to all kinds of soil, is the Bell or Egg Shaped Variety. They are great bearers, and keep a long time if properly stored. They can be raised on poor swampy land, where nothing else will grow, and often produce from two to three hundred bushels per acre.

Circulars, relating to culture, price, &c., will be forwarded gratis to applicants. For sale by F. TROWBRIDGE, [mar-17] Dealer in Trees, Plants, &c. New Haven, Ct.

TROTTER STALLION



JACKSON WILL stand for mares the ensuing season at the Hamtramck House, two miles above Detroit, commencing about the 1st of March. Terms, \$20 the season, and \$1 to the groom. Money to be paid when the mare is served. Should any mare fail to bring a colt the owner of the mare shall be at liberty to bring her again free of charge.

Jackson is 16 hands high, weighs 1400 lbs., possessing fine action, with great power of endurance, and a vigorous constitution. Jackson is a green horse, never having been trained in consequence of his having been kept for mares. In the fall of 1845, after covering 93 mares he performed his mile on the Union Course, to a 250 pound wagon, two men in it, in 2 minutes and 53 seconds.

PEDIGREE, &c.—Jackson was got by the celebrated trotting horse Andrew Jackson; his dam was the noted Lockwood mare, and got by Mambrino, who was got by old Messenger, grand dam by Volunteer, great grand dam by old Expedition. The Lockwood mare was the best trotter of her day, and when 27 years old went her mile in 2.56.

PEDIGREE OF ANDREW JACKSON.—This matchless animal descended from the best road stock in the country, tracing directly back through a line of the choicest ancestry to the present Arabian and English horses, was sired by the celebrated horse Bashaw, who was got by the imported Arabian horse Grand Bashaw. The dam of Andrew Jackson was got by Whynot, who was got by old imported Messenger. His grand dam was also got by old Messenger. Andrew Jackson was also the sire of the celebrated stallions New York Blackhawk, Kemble Jackson and Henry Clay; the sire of Cassius M. Clay, who received the first premium at the Springfield exhibition in the fall of 1853.

PERFORMANCES OF ANDREW JACKSON.—October 27, 1853, over the Huntington Park Course, he beat Daniel D. Tompkins, 2 mile heats with ease in 5.20, and 5.17.

PERFORMANCES OF NEW YORK BLACKHAWK.—In Sept. 1849, in a purse free for all stallions of the United States, he won with ease, in 2.40, 2.38, and 2.41. His other performances are too well known to require comment.

PERFORMANCES OF KEMBLE JACKSON.—June 1, 1853, he made the best trotting race on record, beating without a break or a skip, five competitors in 3 mile heats to a 250 pound wagon; the first in 3 m., and 3 seconds, the second heat in 3 minutes 43 seconds!!

Trusting to the growing demand throughout Michigan for a superior quality of horses, for appreciation of such a horse as Jackson, his owners offer his services as above.

F. W. BACKUS, F. E. ELDRED.

We earnestly recommend the above horse to all those desirous of breeding from pure stock.

COL. J. B. GRAYSON, S. P. BRADY, CAPT. CANFIELD, E. A. BRUSH, J. P. MANSFIELD.

Officers of the "Michigan Association for the improvement of horse seed."

[oct-4]

FOR THE HARVEST OF 1855.

J. H. MANNY'S
PATENT ADJUSTABLE
REAPER AND MOWER COMBINED!
AND
SINGLE MOWER.

Secured to John H. Manny by Nine Patents in the United States! Also Patented in Europe.

Manufactured by MANNY & Co., Rockford, Illinois.

These valuable Machines are constantly being manufactured. A large number are being made for the coming Harvest. Over TWO THOUSAND were constructed during the past season, and used with ENTIRE SUCCESS, yet the demand was not half supplied. FORTY FIRST CLASS PREMIUMS have been awarded to Mr Manny for the superiority of his Machines over all others, in the frequent trials it has had with them, including every Machine that has any claim to reputation.

A WARRANTY is given to each purchaser that the Machine is well built, and of good materials; and that it will Mow as well as can be done with the Scythe, and Reap as well as can be done with the Cradle. The Machine is drawn by two horses, and managed by one person for Mowing, and two persons for Reaping; and is also warranted to cut from ten to fifteen acres per day.

THE NINE PATENTS of John H. Manny for Reaping and Mowing Machines embrace Adjustability, the Knife, Guard Fingers, Dividers, Arrangement of Wheels, of Platforms, Trucks, Levers, Braces, Frame Work, Gathering Wings, Oblique Platform, Joints, Positions for Attendants, etc., etc.—all these being exceedingly valuable features, and in most successful operation.

The only successful and perfect combination of Reaper and Mower in the World, as well as being the best Single Machine for either purpose.

All the various kinds of Reapers and Mowers, have endeavored to compete with this Machine; the result in every instance has shown its superiority, and though the Self-Raker came up with boasted ingenuity and boasted labor-saving advantages, yet it is unable to win

A PRIZE OF FIFTEEN HUNDRED DOLLARS!

But is decided by an honorable Committee (AS A REAPER ONLY,) to be inferior to the best hand-raking machine; to say nothing about their additional price, nor their not being adapted to mowing. But their complication of machinery, wasting the grain, and irregularity of the gavels, far more than neutralizes their claims to labor-saving. While

MANNY'S MACHINE

Excels all others in simplicity of construction, in facility of management, in lightness of draught, (requiring only two horses,) in having no side draught, in its adjustability to uneven ground, and in being readily adjustable to any height from the ground when reaping, by means of a LEVER extending to the driver's seat, and under his control. It also excels every other implement in cutting lodged or tangled grain or grass, whether wet or dry, without clogging. It will cut fax close to the ground, or gather the seed, and will also gather timothy and clover seed. TWO KNIVES—one a sickle, the other a smooth edge—are furnished with each machine, either of which may be used as required. THE COMBINED MACHINE is converted from a Reaper to a Mower, and vice versa, by simply removing or inserting a loose platform, which may be done in less than one minute.

Numerous certificates, recommendations, and testimonials to the great value of Manny's Machine, have been received from all parts of the country, and are published, together with a large amount of other information, in a pamphlet, which will promptly be sent by mail to all applicants.

Terms same as heretofore.—Machines delivered where ordered, with transportation added.

For Two Horse Machine, of about 5 feet cut, Cash price, \$125.00	For Four Horse Machine, of about 6 feet cut, Cash price, \$135.00
Half Cash and the other half on 1st of December, \$225.00	Half Cash and the other half on the 1st of December, \$145.00

Orders should be sent in season to secure machines. To meet the wants of those who have on hand certain kinds of Reapers that will not Mow, or who may only want a MOWING MACHINE, we will furnish our machine adapted simply and exclusively for Mowing, at a Cash price of \$110; half Cash, and the other half on the 1st of December following, \$120. Dealers supplied by wholesale. Farmers within reach of Wadsworth's Grove, Ill., can be supplied by F. MANNY, of that place.

Rockford, Ill., March, 1855.

MANNY & Co.

PREMIUMS AWARDED THIS MACHINE AND MEDAL AT THE WORLD'S FAIR!

Special Notice is hereby given to C. H. McCORMICK that I shall hold him accountable for all his infringements of my rights. He says in the Albany Cultivator, of December, 1852, "Satisfied from the experience of the past harvest of the IMPOSSIBILITY of constructing the same Machine, both for Mowing and Reaping to the best advantage, a SEPARATE Mowing apparatus for the next harvest will be sold with my Reaper." Now, my dear Sir, make your separate Mowing apparatus, but do not infringe my claims, as I shall hold you strictly accountable for so doing.

[mar. am.]

JOHN H. MANNY.